RSTS/E

February 1979

AD-5514B-13

THE SOFTWARE DISPATCH

digital

RSTS/E SOFTWARE DISPATCH

Published by
Administrative Services Group, Software Services
Digital Equipment Corporation
P.O.Box F
Maynard MA 01754

The RSTS/E Software Dispatch complements the **Software Dispatch Review for RSTS/E V6C-03.** It publishes new and revised Software Product Descriptions, programming notes, software problems and solutions, and documentation corrections. Much of the material is developed from answers to customer Software Performance Reports (SPRs) significant to the general audience, and is printed here to establish a reference notebook for the customer's software interests.

PRODUCTS SUPPORTED in the RSTS/E SOFTWARE DISPATCH

APL-11 V1
ASSIST-11 V1
BASIC-PLUS-2 V1
BASIC-PLUS-2/RMS-11K V1
COBOL-11 V3
CTS11/RSTS/E V1.1
CTS-500 V3
CTS-500-2780 V3
DATATRIEVE-11 V1
DECAL V2
DECnet/E V1
DIBOL-11/DECFORM V1, V4
DMS-500 V2
FORTRAN IV/RSTS-E V2
WISE V1
PLOT11-RSTS/E V1.1
RMS-11K V1.5
RPG II V8.02
RSTS/E V6C
RSTS-E/2780 V3
SORT-11 V2
VT55 BASIC-PLUS-2 V1

DISTRIBUTION

The Dispatch is directed to one software contact for each licensed Category A and B software product for one year after installation. No mailing will be made to addresses without a software contact name. Address changes and requests for information about maintenance service after the first year should be sent to the nearest DIGITAL Field Office. For address changes, include the new address and mailing label from the most recently received publication.

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Roxanne Alexander, Associate Editor

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TYPESET-11

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The Dispatch **SPR User Letter** has been revised to reflect the new SPR form which has been available and has been in distribution for several months. This new SPR form can be readily identified by the priority section which uses a 1-5 numbering scheme rather than high, medium and low. These forms can be obtained from your local Digital office or SPR Center or by requesting them from SPR Administration.

How To Make The Best Use Of The SPR Form

What We Can Do For you

1. Blank SPR forms are available upon request in the desired quantities through the SPR Administration (P.O. Box F) and your local office/SPR Center.

2. Copies of the SPR acknowledgement and answer are sent to the appropriate DIGITAL Office/SPR Center for their information.

3. Your local office is provided status for submitted SPRs upon request by contacting SPR Administration.

4. Information is provided to the pertinent District Software Managers on High Priority SPRs that are submitted by customers in their districts.

5. SPRs marked PROBLEM/Error will have a response for supported Category A and B products. These SPRs should refer to suspected deficiencies in the software.

6. SPRs marked SUGGESTION are forwarded to the pertinent software group for information purposes, and are responded to at their discretion.

What You Can Do For Us

1. Customer Name and Address and Problem Statement should always be typed or printed clearly.

2. An SPR should be submitted with only one problem on it. Putting more than one problem on an SPR can greatly lengthen the turn-around time.

3. WHENEVER POSSIBLE, SUBMIT AN SPR WITH ATTACHMENTS, SUCH AS MACHINE READABLE DATA, DETAILED INSTRUCTIONS ON HOW TO REPRODUCE THE PROBLEM, PROGRAM AND/OR DATA FILES, LISTINGS, AND CONSOLE LOG.

4. It would be most helpful to all concerned if problems with patches are reported as soon as possible.

5. For security SPRs, it is imperative that the DO NOT PUBLISH box be marked.

6. It would be helpful if tapes submitted with SPRs are labeled (track and density), and have a directory attached.

7. Should you ever receive an unacceptable SPR response, please contact us or the appropriate SPR Center so that the response may be addressed.

8. SPRs should not be used for problems concerning software policy, software distribution, or hardware. The local office should be contacted in these cases.

PDP-11 COBOL V4.Ø
for RSTS/E V6C

ANNOUNCING PDP-11 COBOL V4.Ø (JHR)

Version 4.0 of PDP-11 COBOL represents a major release of this product, replacing Version 3.1. Almost all application programs will require significantly less CPU time to execute than with earlier versions of PDP-11 COBOL. Reductions in elapsed time of program execution will also be noticed. Performance improvement will be noticed for I/O-bound programs, but the greatest increase in execution speed will occur in application programs that tend to be compute-bound.

Conversion of programs to Version 4.0 from Version 3.1 will typically require only recompilation and task-building. In a few cases (involving the newly-defined COMPUTATIONAL data type), source code changes are required.

In addition to performance improvements, Version 4.0 also includes several new features:

- COBOL Interactive Debugger (CID)

  The COBOL Interactive Debugger (CID) is an easy-to-use tool that helps the programmer test and debug COBOL programs. CID commands:

  - Set and cancel breakpoints, allowing the programmer to interrupt program execution at any point
  - Display and modify variables during program execution, allowing dynamic testing of program logic
  - Resume program execution, either at the next COBOL statement or at another point chosen by the programmer.

  CID requires no source program changes; it is included at task-build time, and can therefore be included in a task without recompilation of any program part. The debugger adds about 1KW to the program's address space requirement.

- Packed-Decimal Data (COMPUTATIONAL-3)

  This new data type can be used to minimize the space required to store decimal numbers.

- COMPUTATIONAL Data Compatibility

  The COMPUTATIONAL data type has been changed to be compatible with the FORTRAN INTEGER data type. It is NOT compatible with Version 3.1 for COMPUTATIONAL data items longer than four decimal digits (one word). Conversion is necessary for programs that either use these data items in files or pass them, as variables, to non-COBOL programs.

  To ease conversion, Version 4.0 includes the COMPUTATIONAL-6 data type; it is the same as COMPUTATIONAL in Version 3.1 (or earlier). Version 4.0 also provides a compiler switch, /CM6, which causes the compiler to interpret COMPUTATIONAL as it did in earlier releases. Both COMPUTATIONAL-6 and the /CM6 switch were designed as temporary conversion aids; for this reason, long-term use of these features is not recommended. In addition, use of the redefined COMPUTATIONAL data type will result in greater performance benefits.

- ACCEPT FROM DAY

  This format now returns the Julian date in the form YYDDD, where YY is the year and DDD is the day of the year. ACCEPT FROM DATE should be used to return the calendar date (YYMMDD).

- Error Message Handling

  An I/O (RMS) error message is displayed only when the program has no applicable declarative routine (USE procedure) or when a STOP RUN statement is detected during execution of the declarative routine.

- Elimination of Data Length Limitation

  The maximum length of COBOL-11 Data Items for Version 3.1 and earlier was 4Ø95 bytes. This limitation is eliminated for Version 4. Naturally, this eliminated limitation operates within the 28KW (RSTS/E) and 32KW (RSX-11M and IAS) swap max and partition size, respectively.

PDP-11 COBOL Version 4.Ø requires a minimum of 28KW for compilation. It produces object modules that are then linked with the COBOL Object-Time-System (OTS) by the Task Builder to produce executable tasks. Version 4.Ø also includes a second OTS, which overlays the error handler to reduce memory requirements without decreasing performance.

The PDP-11 COBOL Version 4.Ø kit for RSTS/E V6C includes a revised Language Reference Manual User's Guide, and Installation Guide; it is now available from the Software Distribution Center.

7.2 Commonly Used System Programs (CUSPs) Patch Levels

This report reflects the current Version/Edit level of all of the Commonly Used System Programs (CUSPs) supplied as part of the standard RSTS/E V06C-03 System Library Programs release.

System Utilities Package

BUILD	V06C-03	DIRECT	V06C-03ABCD	DISPLY	V06C-03AB	VT05	V06C-03
VT50	V06C-03	DSKINT	V06C-03	GRIPE	V06C-03	INIT	V06C-03A
INUSE	V06C-03	LOGIN	V06C-03	LOGOUT	V06C-03A	MONEY	V06C-03
ODT	V06C-03A	PLEASE	V06C-03	PRIOR	V06C-03	QUOLST	V06C-03
REACT	V06C-03	REORDR	V06C-03A	SHUTUP	V06C-03	SWITCH	V06C-03
SYSCAT	V06C-03	SYSTAT	V06C-03AB	TALK	V06C-03	TTYSET	V06C-03
UMOUNT	V06C-03ABC	UTILTY	V06C-03	UTILT1	V06C-03AB		

Data Manipulation Package

BPCREF	V06C-03A	BPCRF1	V06C-03	COPY	V06C-03	EDIT	V06C-03AB
EDITCH	V06C-03A	FILCOM	V06C-03A	FLINT	V06C-03ABC	FLX	V06C-03A
MAKRTS	V06C-03	PIPSML	V06C-03	PIPEXT	V06C-03AB	PMDUMP	V06C-03A
RUNOFF	V06C-03AB						

Error Control Package

ANALY1	V06C-03	ANALYS	V06C-03	ERRBLD	V06C-03	ERRCPY	V06C-03
ERRDET	V06C-03A	ERRDIS	V06C-03	ERRINT	V06C-03		

Backup Package

BACCOM	V06C-03AB	BACCON	V06C-03AB	BACDEL	V06C-03	BACDIR	V06C-03AB
BACDMP	V06C-03	BACDSK	V06C-03A	BACENT	V06C-03A	BACFRM	V06C-03ABCDEF
BACLAB	V06C-03	BACLOD	V06C-03A	BACLST	V06C-03	BACMNT	V06C-03ABCDEF
BACPRM	V06C-03	BACKTO	V06C-03ABC	BACKUP	V06C-03ABCD		

Spooling and Operator Services Package

OPSER	V06C-03	OPSRUN	V06C-03AB				
QUE	V06C-03ABCDEFGH	QUEMAN	V06C-03	QUMRUN	V06C-03AB		
CHARS	V06C-03	SPOOL	V06C-03	SPLIDL	V06C-03	SPLRUN	V06C-03A
BATDCD	V06C-03	BATCH	V06C-03	BATIDL	V06C-03A		
BATDEC	V06C-03ABCDEFG	BATRUN	V06C-03ABCD				

User Environment Test Package

UETP	V06C-03A	ACCTST	V06C-03A	AC0TST	V06C-03A	AC1TST	V06C-03A
AC2TST	V06C-03A	AC3TST	V06C-03A	AC4TST	V06C-03A	AC5TST	V06C-03A
DBEXER	V06C-03	DPEXER	V06C-03	DREXER	V06C-03	DMEXER	V06C-03
DSEXER	V06C-03	DFEXER	V06C-03	DKEXER	V06C-03	DXEXER	V06C-03
MTEXER	V06C-03	DTEXER	V06C-03	CPEXER	V06C-03	CREXER	V06C-03
PPEXER	V06C-03	PREXER	V06C-03	KBEXER	V06C-03	LPEXER	V06C-03
SCRIPT	V06C-03	SCRPTB	V06C-03	CVTSCP	V06C-03	OPTPRM	V06C-03
OPTPRK	V06C-03	OPTPRB	V06C-03	TDLSRT	V06C-03	TDLXQK	V06C-03
TDLMQK	V06C-03	TDLOQK	V06C-03	TDLSQK	V06C-03A	CRFILE	V06C-03A
TAPSRT	V06C-03	TAPSRU	V06C-03	DECMRG	V06C-03A	VERIFY	V06C-03
RANMAK	V06C-03	JSTATS	V06C-03	DSTATS	V06C-03	CPUTST	V06C-03
FILMIN	V06C-03	CRUDAT	V06C-03	FLOPPY	V06C-03A	CRDATA	V06C-03A
BUILDR	V06C-03A	PKBSNE	V06C-03				

Automated Patching Facility Package

AUTOED	V06C-03	CPATCH	V06C-03	PATCPY	V06C-03	PBUILD	V06C-03ABC

DECnet/E Utilities

NCROOT	V06C-03A	NETFNC	V06C-03	NCP	V06C-03A	NCU	V06C-03AB
NIP	V06C-03	LSN	V06C-03	TLK	V06C-03A		

RSTS/E VØ6C-Ø3
RSTS/E INIT.SYS Program
INIT.SYS Program Patches

Seq 1.1.6 M

DUAL PORT DRIVES NOT HANDLED CORRECTLY - MANDATORY INIT.SYS PATCH

PROBLEM:

The initialization code does not correctly test whether a disk drive is present when that disk drive is switched to a different port.

SOLUTION:

This patch will make the correct test to determine whether or not the disk drive is switched to a different port.

PROCEDURE:

1. This is a required patch to the RSTS/E INIT.SYS Program. Since patching the distribution medium is not recommended, the patch must be installed every time the COPY option is used to copy INIT.SYS from the distribution medium. Any copy of the patched INIT.SYS will propagate the fix.

2. The patch described in Steps 5 and 6 below can be installed using the PATCH option of INIT.SYS:

   ```
   Option: PATCH
   File to patch? INIT.SYS
   ```

3. The patch can be installed manually using ONLPAT, the on-line patching program:

   ```
   RUN $ONLPAT
   Command File Name? <cr>      (RETURN for manual patch installation)
   File to patch? INIT.SYS
   File found in account [Ø,1]
   ```

   The patch is also contained in a command file ($INIT.CMD) appearing in patch kit version "E" or later.

4. Install the patch in step 5 if you have V6C-Ø3 distribution.

   Install the patch in step 6 if you have V6C-Ø4 (RLØ1/RKØ7) distribution. The VØ6C-Ø4 distribution was an SDC update to provide RLØ1 and RKØ7 support, and is available only on these media.

5. The patch for V6C-03 is as follows:

```
File to patch? INIT.SYS
Base address? 53000
Offset address? 10714
 Base   Offset  Old     New?
053000  010714  010000  ? 400
053000  010716  000010  ? 12
053000  010720  001404  ? 1004
053000  010722  011503  ? ^C          (CTRL/C to exit;up-arrow/C for ONLPAT)
```

6. The patch for V6C-04 is as follows:

```
File to patch? INIT.SYS
Base address? 55000
Offset address? 11200
 Base   Offset  Old     New?
055000  011200  010000  ? 400
055000  011202  000010  ? 12
055000  011204  001404  ? 1004
055000  011206  011503  ? ^C          (CTRL/C to exit;up-arrow/C for ONLPAT)
```

7. The patch will take effect when the system is next rebooted.

RSTS/E VØ6C-Ø3 Seq 3.5.8 0
RSTS/E Executive
File Processor Patches

ALLOWING CROSS ACCOUNT RENAMES - OPTIONAL FILE PROCESSOR PATCH

PROBLEM:

The optional file processor patch described in Seq 3.5.7 0 will allow a non-privileged user to create files in any account which has the same project number. Due to the manner in which the RT11 Emulator creates files, i.e., opening a temporary file and renaming it when closed, those utilities which run under the RT11 Emulator (e.g., PIP.SAV) will not allow users to create files cross account.

SOLUTION:

The following optional File Processor patch will solve the problem for files created under the RT11 Emulator only if the patch in Seq 3.5.7 0 has been installed. It will also allow any user to rename any file in any account which has the same project number (i.e., rename files in any [x,*] account if the job's account is [x,y]).

PROCEDURE:

1. This is an optional patch to the RSTS/E VØ6C-Ø3 executive. It may be installed in any target monitor SIL.

2. The patch described in Step 4 below can be installed using the PATCH option after bootstrapping your system disk:

   ```
   Option: PATCH
   File to patch? <lf>          (LINE FEED for installed monitor SIL)
   ```

3. This patch can NOT be made to the installed monitor SIL using ONLPAT, the on-line patching program, because it patches overlay code to refer to patch space that is not in the overlay.

4. The patch is as follows:

If you made the file delete/rename code resident when you generated the monitor SIL, answer the "Module name?" question with "FIP"; otherwise, answer with "OVR" as shown.

```
Module name? RSTS
Base address? $$Ø3Ø5
Offset address? Ø
 Base   Offset  Old     New?
??????  ØØØØØØ  ??????  ? Q!2ØØ
??????  ØØØØØ2  ??????  ? ^Z            (CTRL/Z for new offset)
Offset address? ^Z                      (CTRL/Z for new base)
Base address? ^Z                        (CTRL/Z for new module)
Module name? OVR    (or FIP)
Base address? DLNØST
Offset address? 644
 Base   Offset  Old     New?
??????  ØØØ644  Ø21Ø37  ? 4737
??????  ØØØ646  ØØ1Ø32  ? FIPPAT
??????  ØØØ65Ø  ØØ14Ø3  ? ^Z            (CTRL/Z for new offset)
Offset address? ^Z                      (CTRL/Z for new base)
Base address? ^Z                        (CTRL/Z for new module)
Module name? FIP
Base address? FIPPAT
Offset address? Ø
 Base   Offset  Old     New?
12ØØØØ  ØØØØØØ  ØØØØØØ  ? 126Ø37
12ØØØØ  ØØØØØ2  ØØØØØØ  ? 1
12ØØØØ  ØØØØØ4  ØØØØØØ  ? FIUSER+1
12ØØØØ  ØØØØØ6  ØØØØØØ  ? 2Ø7
12ØØØØ  ØØØØ1Ø  ??????  ? ^C            (CTRL/C to exit)

Option:
```

RSTS/E VØ6C-Ø3
Backup Package
BACKTO

Seq 13.15.3 M

PROBLEM WHEN SPLIT FILE IS DELETED - MANDATORY BACKTO PATCH

PROBLEM:

If the last file to be backed up to magtape is being split and is deleted while being split, an extra end-of-file mark will be written on the last backup volume before the index, preventing BACKUP from recognizing the tape on a subsequent restore operation. The work file on disk, however, can be used.

SOLUTION:

The patching procedure detailed below prevents BACKTO from writing the extra end-of-file mark under the conditions described above, and allows a subsequent restore operation to use the index from the backup set.

PROCEDURE:

1. For purposes of the discussion, we will assume that the required program to be patched is located on the public disk structure. In the patching procedure, we will refer to the program by its most simple name format: <program name>.BAS. The person performing the patching operation should, if necessary, replace all program references with suitable text according to the requirements of the installation.

   Also, for purposes of presenting the patching procedure, we assume that the patching operation will be performed in a privileged account.

2. The command file for this patch appears in patch kit version "F" or later. If you do not have this distribution you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - BACKTO.BAS=BACKTO.BAS<cr>
#[logfile=]<cr>
*H/Ø3AB/I/C/V<cr>
 !                EDIT            : Ø3ABC
*H/12-MAY-78/-9C/Ø2-JAN-79/V<cr>
 !                EDIT DATE       : Ø2-JAN-79
*H/2Ø/G/REASON/V<cr>
  !     VER/ED          EDIT DATE       REASON
*I<cr>
<If>
  !<tab>6C-Ø3ABC<tab>Ø2-JAN-79<tab>HANDLE LAST FILE SPLIT AND DELETED.<esc>*V<cr>
  !     6C-Ø3ABC        Ø2-JAN-79       HANDLE LAST FILE SPLIT AND DELETED.
*H/1Ø49Ø<tab>/V<cr>
1Ø49Ø   D8%=D8% OR (A9% AND 12288%)
*G/UNLESS T9%/V<cr>
        \ Z%=MAGTAPE(2%,Ø%,6%) IF M%<>Ø% UNLESS T9%<>Ø%
```

```
*4C/ OR (Z0%(C1%,30%) AND 1024%)/V<cr>
        \ Z%=MAGTAPE(2%,0%,6%) IF M%<>0% UNLESS T9% OR (Z0%(C1%,30%) AND 1024%)
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. To re-compile the program and re-enter it into the system library, type the following RSTS/E commands.

```
OLD BACKTO<cr>

Ready

COMPILE $BACKTO<cr>

Ready

RUN $PIP<cr>
*=$BACKTO.BAC<232>/RE<cr>
*^Z

Ready
```

4. The person making the changes to the program should now take whatever steps are necessary, according to installation guidelines, to save the new version of the program.

5. The source (.BAS) version of the program should now be removed from the public structure by using either the UNSAVE or the KILL commands of RSTS/E.

RSTS/E VØ6C-Ø3
Spooling and Operator Services Package
QUE

QUE HANDLES LOGICAL DEVICES INCORRECTLY - MANDATORY QUE PATCH

PROBLEM:

QUE does not handle system wide logicals which consist of only a [P,PN].

SOLUTION:

The patching procedure detailed below corrects the above problem.

PROCEDURE:

1. For purposes of the discussion, we will assume that the required program to be patched is located on the public disk structure. In the patching procedure, we will refer to the program by its most simple name format: <program name>.BAS. The person performing the patching operation should, if necessary, replace all program references with suitable text according to the requirements of the installation.

   Also, for purposes of presenting the patching procedure, we assume that the patching operation will be performed in a privileged account.

2. The command file for this patch appears in patch kit version "F" or later. If you do not have this distribution you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

```
RUN $CPATCH<cr>
.<CPATCH's header line>

File to patch - QUE.BAS=QUE.BAS<cr>
#[logfile=]<cr>
*H/6!/V<cr>
6!                EDIT            : Ø3ABCDEFG
*G/Ø3ABCDEFG/I/H/V<cr>
6!                EDIT            : Ø3ABCDEFGH
*H/7!/V<cr>
7!                EDIT DATE       : 28-AUG-78
*G/28-AUG-78/-9C/18-DEC-78/V<cr>
7!                EDIT DATE       : 18-DEC-78
*H/2Ø/V<cr>
2Ø      !
*G/REASON/V<cr>
21!     VER/ED          EDIT DATE  .    REASON
```

RSTS/E V06C-03
Spooling and Operator Services Package
QUE

Seq 14.4.8 M
Page 2 of 2

```
*I<cr>
<If>
  !<tab>6C-03ABCDEFGH<tab>18-DEC-78<tab>LOGICAL NAMES ":[P,PN]".<esc>*V<cr>
  !     6C-03ABCDEFGH    18-DEC-78       LOGICAL NAMES ":[P,PN]".
*H/1000<tab>/V<cr>
1000    C$=SYS(CHR$(6%)+CHR$(9%)+CHR$(0%))
*4AV<cr>
        \ PRINT "QUE    V06C-03ABCDEFG  ";C$
*G/03ABCDEFG/I/H/V<cr>
        \ PRINT "QUE    V06C-03ABCDEFGH ";C$
*H/3040<tab>/V<cr>
3040    IF FND%(FNU$(Y1$(I1%,0%)))=0% THEN
*G/))/I/+":"/V<cr>
3040    IF FND%(FNU$(Y1$(I1%,0%))+":")=0% THEN
*H/15400<tab>/V<cr>
15400   DEF FND%(M$)
*2AV<cr>
        \ M$=LEFT(M$,2%)+":"
*KV<cr>
        \ Z8$=SYS(CHR$(6%)+CHR$(-10%)+M$)
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. To re-compile the program and re-enter it into the system library, type the following RSTS/E commands.

```
OLD QUE<cr>

Ready

COMPILE $QUE<cr>

Ready

RUN $PIP<cr>
*=$QUE.BAC<232>/RE<cr>
*^Z

Ready
```

4. The person making the changes to the program should now take whatever steps are necessary, according to installation guidelines, to save the new version of the program.

5. The source (.BAS) version of the program should now be removed from the public structure by using either the UNSAVE or the KILL commands of RSTS/E.

RSTS/E VØ6C-Ø3
RT-11 Emulator Package
PIP.SAV

********** Supersedes Article November, 1978 **********

NOTE

This article previously published in September, 1978 and superseded in November, 1978, describing the problem below, contained an incorrect value in the patching procedure. This article contains the corrected value. If either of the previously published patches was applied, you may simply change the value at Base 25236, Offset 2 to its correct value: 23520 (noted by the change bar below).

ACCOUNTING STATISTICS NOT RESET ON FILE MERGE OPERATIONS - MANDATORY PIP.SAV PATCH

PROBLEM:

When transferring files with PIP.SAV, the date and time of last access for all input files are reset to reflect the status of the file before the transfer took place. When merging several files into one output file, PIP.SAV fails to reset accounting statistics on all input files except the first.

SOLUTION:

The following mandatory patch solves this problem.

PROCEDURE:

1. This is a required patch to PIP.SAV.

2. The patch described in Step 4 below can NOT be installed using the PATCH option of INIT.SYS.

3. This patch can be installed manually using ONLPAT, the on-line patching program:

```
RUN $ONLPAT
Command File Name? <cr>              (RETURN for manual patch installation)
File to patch? [1,2]PIP.SAV
File found in account [1,2]
```

   The patch is also contained in a command file appearing in patch kit version "E" or later.

RSTS/E V06C-03
RT-11 Emulator Package
PIP.SAV

4. The patch is as follows:

```
Base address? 2176
Offset address? 10356
 Base   Offset  Old     New?
002176  010356  005767  ? 240
002176  010360  010740  ? 240
002176  010362  001112  ? 240
002176  010364  105767  ? ^Z              (CTRL/Z for new offset)
Offset address? 10506
 Base   Offset  Old     New?
002176  010506  105767  ? 4737
002176  010510  010524  ? 25236
002176  010512  001036  ? ^Z              (CTRL/Z for new offset)
Offset address? ^Z                      (CTRL/Z for new base)
Base address? 25236
Offset address? 0
 Base   Offset  Old     New?
025236  000000  000000  ? 5737
025236  000002  000000  ? 23520
025236  000004  000000  ? 1404
025236  000006  000000  ? 137
025236  000010  000000  ? 13006
025236  000012  000000  ? 105737
025236  000014  000000  ? 20746
025236  000016  000000  ? 207
025236  000020  000000  ? ^C            (up-arrow/C to exit)
Patch complete
1 patch installed

Command File Name ? ^Z                  (CTRL/Z to exit)
```

RPG II V8.02
for RSTS/E V6C
Compiler V8.02C

Seq 32.2.5 M
1 of 1
Supersedes article dated Jan 79.

Note: This article was published in the January Dispatch with an incorrect sequence number (32.2.4.5).

NUMBER OF DEVICE UNITS - MANDATORY COMPILER PATCH (11-20543 YL)

PROBLEM:

Compiler patch 8.02B in Article Sequence Number 32.2.3 fails to take into account the fact that in some RSTS/E environments the system subroutine CBTA gets relocated. This invalidates the patch given in the previous article.

SOLUTION:

The patch detailed below will remove the previous patch (V8.02B). The patch detailed in the following article, Sequence 32.2.6, will correct the problem.

PROCEDURE:

1. For purposes of the discussion, we will assume that the RPG Compiler task build command file is located on the public disk structure. In the patching procedure, we will, therefore, refer to that file by its simplest form: RPGCMP.CMD. If the file is not available as assumed, you should replace all of the file references according to the requirements of your installation.

2. The command file for this patch appears in patch kit version "E" or later. If you do not have that distribution, you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - RPGCMP.CMD=RPGCMP.CMD<cr>
#[logfile=]<cr>
*H/V8.02B/V<cr>
; V8.02B -- NUMBER OF DEVICE UNITS<cr>
*2AV<cr>
GBLPAT=EXIT:C.CLSE+414:121322<cr>
*KI<cr>
; PATCH 8.02B REMOVED<cr>
<esc>*AV<cr>
; V8.02C -- OUTPUT AND/OR COMPLEX RECORDS<cr>
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. Do NOT re-build the RPG Compiler using the corrected command file. Instead, now install the patch given in the following article, Sequence 32.2.6

4. You should now take whatever steps are necessary, according to your installation guidelines, to save the new version of the command file.

RPG II V8.02
for RSTS/E V6C
Compiler V8.02C

NUMBER OF DEVICE UNITS - MANDATORY COMPILER PATCH (11-20543 YL)

PROBLEM:

When the RPG Compiler builds the .CMD file for the Task Builder, it enters the number for the 'UNITS=' option as an octal number. TKB expects a decimal number. This results in limiting an RPG program to 10 files in the RSTS/E environment.

SOLUTION:

The patch detailed below will correct the number of units.

PROCEDURE:

For purposes of the discussion, we will assume that the patching procedure will be performed in a privileged account, and that all of the necessary RPG Compiler files (RPGCMP.CMD, RPGCMP.ODL and RPGCMP.OLB) are located on the public disk structure in that account. If the files are not available as assumed, you should replace all of the file references according to the requirements of your installation.

The command file for this patch appears in patch kit version "E" or later. To apply the patch manually, perform the following RSTS/E system commands.

1. Build the following correction file using an editor and name it: EXIT.COR

```
        .TITLE  EXIT
        .IDENT  /V8.01/
.=.+412
        JSR     PC,$CBDMG
        .END
```

2. Assemble the correction file as follows:

```
RUN $MAC.TSK
MAC>EXIT.PAT,EXIT.LIS=EXIT.COR
MAC>^Z                                          (CTRL/Z to exit)
```

3. Extract the original module as follows:

```
RUN $LBR.TSK
LBR>EXIT.OLD=RPGCMP/EX:EXIT
LBR>^Z                                          (CTRL/Z to exit)
```

4. Run the patch utility to merge the old module and correction:

```
RUN $PAT.TSK
PAT>EXIT=EXIT.OLD/CS:44060,EXIT.PAT/CS:4673
PAT>^Z                                          (CTRL/Z to exit)
```

RPG II V8.02
for RSTS/E V6C
Compiler V8.02C

Seq 32.2.6 M
2 of 2

5. Replace the patched module in the library:

```
RUN $LBR.TSK
LBR>RPGCMP/RP=EXIT
LBR>^Z                                          (CTRL/Z to exit)
```

6. Re-build the RPG Compiler and re-enter it into the system library as follows:

```
RUN $TKB.TSK<cr>
TKB>@RPGCMP<cr>
TKB>^Z                                          (CTRL/Z to exit)

Ready

RUN $PIP.SAV<cr>
*$RPG.TSK=RPG.TSK<cr>
*=$RPG.TSK<232>/RE<cr>
*^Z                                             (CTRL/Z to exit)

Ready
```

7. You should now take whatever steps are necessary, according to your installation guidelines, to save the correction file.

8. The command file and other files used during the patching procedures should now be removed from the public structure.

RPG II V8.02
   for RSTS/E V6C
RPGDCV V2-03

ILLEGAL FILE NAME IN TAPE LABELS - MANDATORY RPGDCV PATCH (11-19957 GT)

PROBLEM:

When RPGDCV is used to convert files from a labelled tape, if the file name in the label is less than 6 characters in length, an "?Illegal file name" error message may be given.

SOLUTION:

The patch detailed below corrects this problem.

NOTE

There are two versions of this patch: version "A" applies to the BASIC-PLUS-2 source form of RPGDCV (installed by RPGGEN.CTL), and version "B" applies to the MACRO-11 source form of RPGDCV (installed by RPGNB2.CTL).

PROCEDURE:

1. For purposes of the discussion, we will assume that the RPGDCV source file is located on the public disk structure. In the patching procedure, we will, therefore, refer to that file by its simplest form: either RPGDCV.B2S or RPGDCV.MAC. If the file is not available as assumed, you should replace all of the file references according to the requirements of your installation.

   Also, for purposes of presenting the patching procedure, we assume that the patching procedure will be performed in a privileged account, and that any other necessary files (RPGDCV.CMD and RPGDCV.ODL for the MACRO-11 version) are located in that account.

2. The command files for this patch appear in patch kit version "E" or later. If you do not have that distribution, you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

A - BASIC-PLUS-2

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - RPGDCV.B2S=RPGDCV.B2S<cr>
#[logfile=]<cr>
```

RPG II V8.02
   for RSTS/E V6C
RPGDCV V2-03

Seq 32.6.2 M
2 of 4

```
*H/EDIT 03/V<cr>
1!**<tab>RPGDCV<tab><tab>VERSION 2<tab>EDIT 03<tab><tab>22-JUN-78<cr>
*-C/4/G/22-JUN/-6C/20-DEC/V<cr>
1!**<tab>RPGDCV<tab><tab>VERSION 2<tab>EDIT 04<tab><tab>20-DEC-78<cr>
*H/V2-03/V<cr>
1030<tab>PRINT 'RPGDCV V2-03'<cr>
*-C/4/V<cr>
1030<tab>PRINT 'RPGDCV V2-04'<cr>
*H/2067<tab>/V<cr>
2067<tab>GET  1% &<cr>
*2AL<cr>
<tab>N1$=XLATE(H2$,T$)\ &<cr>
*G/=/I/EDIT$(/G/)/I/,2%)/V<cr>
<tab>N1$=EDIT$(XLATE(H2$,T$),2%)\ &<cr>
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

B - MACRO-11

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - RPGDCV.MAC=RPGDCV.MAC<cr>
#[logfile=]<cr>
*H/13104/V<cr>
<tab>.WORD<tab>13104<cr>
*-3C/360/V<cr>
<tab>.WORD<tab>13360<cr>
*AL<cr>
<tab>.WORD<tab>$PDATA+40<cr>
*H/V2-03/V<cr>
<tab>RLI$M <tab>,$PDATA+20<tab>; "RPGDCV V2-03"<cr>
*-C/4/V<cr>
<tab>RLI$M <tab>,$PDATA+20<tab>; "RPGDCV V2-04"<cr>
*H/L2067:/V<cr>
L2067:<tab>ONI$S <tab><cr>
*13AL<cr>
<tab>XLT$<tab><cr>
*AI<cr>
<tab>CLI$S <tab><cr>
<tab>MOI$IS<tab>,2<tab><tab>; #2<cr>
<tab>CVT$<tab><cr>
<esc>*V<cr>
<tab>MOS$SM<tab>,$STRNG+1536<tab>; N1$<cr>
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. To re-build the RPGDCV program and re-enter it into the system library, type the following RSTS/E commands.

A - BASIC-PLUS-2

```
RUN $BASIC2.TSK<cr>

<BASIC-PLUS-2's header line>


Basic2

OLD RPGDCV<cr>

Basic2

HISEG<cr>
Name--BP2COM<cr>
Account--LB:<cr>

Basic2

COMPILE/OBJ<cr>

Basic2

BUILD/SEQ<cr>

Basic2

RUN $TKB.TSK<cr>
TKB>@RPGDCV<cr>
TKB>^Z

Ready

RUN $PIP.SAV<cr>
*$RPGDCV.TSK=RPGDCV.TSK<cr>
*=$RPGDCV.TSK<232>/RE<cr>
*^Z

Ready
```

B - MACRO-11

```
RUN $MAC.TSK<cr>
MAC>RPGDCV=RPGDCV<cr>
MAC>^Z

Ready
```

```
RUN $TKB.TSK<cr>
TKB>@RPGDCV<cr>
TKB>^Z

Ready

RUN $PIP.SAV<cr>
*=$RPGDCV.TSK<232>/RE<cr>
*^Z

Ready
```

4. You should now take whatever steps are necessary, according to your installation guidelines, to save the new version of the program.

5. The source (.B2S or .MAC) version of the program and other files used during the patching procedures should now be removed from the public structure.

RPG II V8.02
for RSTS/E V6C
RPGESP V2-04

Seq 32.8.1 M
1 of 4
Supersedes article dated Jan 79.

SPORADIC CONCATENATION OF STATEMENTS - MANDATORY RPGESP PATCH (JE)

PROBLEM:

RPGESP sporadically concatenates statements.

SOLUTION:

The patch detailed below will correct this problem.

NOTE

There are two versions of this patch: version "A" applies to the BASIC-PLUS-2 source form of RPGESP (installed by RPGGEN.CTL), and version "B" applies to the MACRO-11 source form of RPGESP (installed by RPGNB2.CTL).

PROCEDURE:

1. For purposes of the discussion, we will assume that the RPGESP source file is located on the public disk structure. In the patching procedure, we will, therefore, refer to that file by its simplest form: either RPGESP.B2S or RPGESP.MAC. If the file is not available as assumed, you should replace all of the file references according to the requirements of your installation.

   Also, for purposes of presenting the patching procedure, we assume that the patching procedure will be performed in a privileged account, and that any other necessary files (RPGESP.CMD and RPGESP.ODL for the MACRO-11 version) are located in that account.

2. The command files for this patch appear in patch kit version "E" or later. If you do not have that distribution, you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

A - BASIC-PLUS-2

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - RPGESP.B2S=RPGESP.B2S<cr>
#[logfile=]<cr>
*H/RPGESP/V<cr>
2<tab>!<tab>Program<tab><tab>: RPGESP<cr>
```

RPG II V8.02 Seq 32.8.1 M
for RSTS/E V6C 2 of 4
RPGESP V2-04 Supersedes article dated Jan 79.

```
*2AL<cr>
6<tab>!<tab>Edit<tab><tab>: 04<cr>
*G/04/-C/5/V<cr>
6<tab>!<tab>Edit<tab><tab>: 05<cr>
*AL<cr>
7<tab>!<tab>Edit Date<tab>: 07-SEP-77<cr>
*G/07-SEP-77/V<cr>
7<tab>!<tab>Edit Date<tab>: 07-SEP-77<cr>
*-9C/08-SEP-78/V<cr>
7<tab>!<tab>Edit Date<tab>: 08-SEP-78<cr>
*5AL<cr>
11<tab>!<tab>Copyright (C) 1975,76,77,  &<cr>
*G/76,77/-4C/7,78/V<cr>
11<tab>!<tab>Copyright (C) 1975,77,78,  &<cr>
*H/V2-04/V<cr>
<tab>!<tab>V2-04<tab><tab>06-SEP-77<tab>RENUMBER >32767, CCL<cr>
*G/CCL/I<cr>
 &<cr>
<tab>!<tab>V2-05<tab><tab>08-SEP-78:JLE<tab>LINE CONCATENATION<esc>*V<cr>
<tab>!<tab>V2-05<tab><tab>08-SEP-78:JLE<tab>LINE CONCATENATION<cr>
*H/V2-04/V<cr>
1010<tab>ID$="RPGESP V2-04 [RSTS:BP2]" \ ON ERROR GO TO 8000 &<cr>
*-C/5/V<cr>
1010<tab>ID$="RPGESP V2-05 [RSTS:BP2]" \ ON ERROR GO TO 8000 &<cr>
*H/5600<tab>G/V<cr>
5600<tab>GOSUB 9400 \ PRINT CR$+LF$+EOS$+"[Closing File...]" \ &<cr>
*AL<cr>
<tab>PRINT #K3%,NXT$; IF NXT$<>"" \ &<cr>
*G/NXT$/DV<cr>
<tab>PRINT #K3%,NXT$ IF NXT$<>"" \ &<cr>
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

B - MACRO-11

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - RPGESP.MAC=RPGESP.MAC<cr>
#[logfile=]<cr>
*H/RPGESP/V<cr>
<tab>.TITLE<tab>RPGESP<cr>
*AL<cr>
<tab>.IDENT<tab>/001000/<cr>
*H/13360/V<cr>
<tab>.WORD<tab>13360<cr>
*-3C/616/V<cr>
<tab>.WORD<tab>13616<cr>
```

RPG II V8.02 Seq 32.8.1 M
for RSTS/E V6C 3 of 4
RPGESP V2-04 Supersedes article dated Jan 79.

```
*H/V2-04/V<cr>
<tab>MOS$MM<tab>,$PDATA+20<tab>; "RPGESP V2-04 [RSTS:BP2]"<cr>
*-C/5/V<cr>
<tab>MOS$MM<tab>,$PDATA+20<tab>; "RPGESP V2-05 [RSTS:BP2]"<cr>
*H/L5600:/V<cr>
L5600:<tab>LIN$<tab>,5600<tab><tab>;  5600<cr>
*G/; K3%/V<cr>
<tab>MOI$MS<tab>,$IDATA+1462<tab>; K3%<cr>
*G/NXT$/V<cr>
<tab>RLI$M <tab>,$STRNG+1772<tab>; NXT$<cr>
*AL<cr>
<tab>PVS$AI<tab>,-1<tab><tab>;  -1<cr>
*G/-1/-2C/0/G/-1/-2C/0/V<cr>
<tab>PVS$AI<tab>,0<tab><tab>;  0<cr>
*2AL<cr>
T86:<tab>TSI$M <tab>,$IDATA+1486<tab>; NEWFIL%<cr>
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. To re-build the RPGESP program and re-enter it into the system library, type the following RSTS/E commands.

```
A - BASIC-PLUS-2

RUN $BASIC2.TSK<cr>

<BASIC-PLUS-2's header line>


Basic2

OLD RPGESP<cr>

Basic2

HISEG<cr>
Name [??????]--BP2COM<cr>
Account [???]--LB:<cr>

Basic2

COMPILE/OBJ<cr>

Basic2

BUILD/SEQ<cr>

Basic2
```

```
RUN $TKB.TSK<cr>
TKB>@RPGESP<cr>
TKB>^Z

Ready

RUN $PIP.SAV<cr>
*$RPGESP.TSK=RPGESP.TSK<cr>
*=$RPGESP.TSK<232>/RE<cr>
*^Z

Ready
```

B - MACRO-11

```
RUN $MAC.TSK<cr>
MAC>RPGESP=RPGESP<cr>
MAC>^Z

Ready

RUN $TKB.TSK<cr>
TKB>@RPGESP<cr>
TKB>^Z

Ready

RUN $PIP.SAV<cr>
*=$RPGESP.TSK<232>/RE<cr>
*^Z

Ready
```

4. You should now take whatever steps are necessary, according to your installation guidelines, to save the new version of the program.

5. The source (.B2S or .MAC) version of the program and other files used during the patching procedures should now be removed from the public structure.

RPG II V8.02
for RSTS/E V6C
RPGESP V2-05

PROBLEM DELETING FIRST LINE - MANDATORY RPGESP PATCH (JE)

PROBLEM:

In some cases, after deleting the first line on a page, RPGESP cannot access other existing lines on the page. Instead, it responds "[New line]" to an attempt to access any such line.

SOLUTION:

The patch detailed below will correct this problem.

NOTE

There are two versions of this patch: version "A" applies to the BASIC-PLUS-2 source form of RPGESP (installed by RPGGEN.CTL), and version "B" applies to the MACRO-11 source form of RPGESP (installed by RPGNB2.CTL).

PROCEDURE:

1. For purposes of the discussion, we will assume that the RPGESP source file is located on the public disk structure. In the patching procedure, we will, therefore, refer to that file by its simplest form: either RPGESP.B2S or RPGESP.MAC. If the file is not available as assumed, you should replace all of the file references according to the requirements of your installation.

   Also, for purposes of presenting the patching procedure, we assume that the patching procedure will be performed in a privileged account, and that any other necessary files (RPGESP.CMD and RPGESP.ODL for the MACRO-11 version) are located in that account.

2. The command files for this patch appear in patch kit version "E" or later. If you do not have that distribution, you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

A - BASIC-PLUS-2

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - RPGESP.B2S=RPGESP.B2S<cr>
#[logfile=]<cr>
*H/RPGESP/V<cr>
2<tab>!<tab>Program<tab><tab>: RPGESP<cr>
```

RPG II V8.02
   for RSTS/E V6C
RPGESP V2-05

Seq 32.8.2 M
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```
*2AL<cr>
6<tab>!<tab>Edit<tab><tab>: 05<cr>
*G/05/-C/6/V<cr>
6<tab>!<tab>Edit<tab><tab>: 06<cr>
*AL<cr>
7<tab>!<tab>Edit Date<tab>: 08-SEP-78<cr>
*G/08-SEP-78/-9C/18-DEC-78/V<cr>
7<tab>!<tab>Edit Date<tab>: 18-DEC-78<cr>
*H/V2-05/V<cr>
<tab>!<tab>V2-05<tab><tab>08-SEP-78:JLE<tab>LINE CONCATENATION<cr>
*G/ION/I<cr>
 &<cr>
<tab>!<tab>V2-06<tab><tab>18-DEC-78:JLE<tab>FIRST LINE DELETE<esc>*V<cr>
<tab>!<tab>V2-06<tab><tab>18-DEC-78:JLE<tab>FIRST LINE DELETE<cr>
*H/V2-05/V<cr>
1010<tab>ID$="RPGESP V2-05 [RSTS:BP2]" \ ON ERROR GO TO 8000 &<cr>
*-C/6/V<cr>
1010<tab>ID$="RPGESP V2-06 [RSTS:BP2]" \ ON ERROR GO TO 8000 &<cr>
*H/5120<tab>/V<cr>
5120<tab>NOCOPY%=TRUE% \ GOSUB 7000 \ PREV%=BEFORE%(CURR%) \ &<cr>
*9AI<cr>
5130<tab>CURR%=PREV% UNLESS CURR% &<cr>
<tab><tab>! RESET FOR NEW FIRST LINE<cr>
<cr>
<esc>*V<cr>
5180<tab>MSG%=4% \ GOSUB 9000 \ GO TO 4000<tab>! "[DELETED]"<cr>
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

B - MACRO-11

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - RPGESP.MAC=RPGESP.MAC<cr>
#[logfile=]<cr>
*H/RPGESP/V<cr>
<tab>.TITLE<tab>RPGESP<cr>
*AL<cr>
<tab>.IDENT<tab>/001000/<cr>
*H/13616/V<cr>
<tab>.WORD<tab>13616<cr>
*-3C/872/V<cr>
<tab>.WORD<tab>13872<cr>
*H/5180,/V<cr>
<tab>.WORD<tab>5180,<tab>L5180<cr>
*0AI<cr>
<tab>.WORD<tab>5130,<tab>L5130<cr>
<esc>*V<cr>
<tab>.WORD<tab>5180,<tab>L5180<cr>
```

RPG II V8.02
   for RSTS/E V6C
RPGESP V2-05

Seq 32.8.2 M
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```
*H/.BLKW<tab>512/V<cr>
<tab>.BLKW<tab>512<cr>
*-C/0/V<cr>
<tab>.BLKW<tab>510<cr>
*H/V2-05/V<cr>
<tab>MOS$MM<tab>,$PDATA+20<tab>; "RPGESP V2-05 [RSTS:BP2]"<cr>
*-C/6/V<cr>
<tab>MOS$MM<tab>,$PDATA+20<tab>; "RPGESP V2-06 [RSTS:BP2]"<cr>
*H/L5180:/V<cr>
L5180:<tab>LIN$<tab>,5180<tab><tab>; #5180<cr>
*0AI<cr>
L5130:<tab>LIN$<tab>,5130<tab><tab>; #5130<cr>
<tab>TSI$M <tab>,$IDATA+1500<tab>; CURR%<cr>
<tab>BNE$<tab>,T71A<cr>
<tab>MOI$MM<tab>,$IDATA+1494<tab>; PREV%<cr>
<tab><tab> $IDATA+1500<tab>; CURR%<cr>
T71A:<cr>
<esc>*V<cr>
L5180:<tab>LIN$<tab>,5180<tab><tab>; #5180<cr>
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. To re-build the RPGESP program and re-enter it into the system library, type the following RSTS/E commands.

```
A - BASIC-PLUS-2

RUN $BASIC2.TSK<cr>

<BASIC-PLUS-2's header line>


Basic2

OLD RPGESP<cr>

Basic2

HISEG<cr>
Name [??????]--BP2COM<cr>
Account [???]--LB:<cr>

Basic2

COMPILE/OBJ<cr>

Basic2

BUILD/SEQ<cr>

Basic2
```

```
RUN $TKB.TSK<cr>
TKB>@RPGESP<cr>
TKB>^Z

Ready

RUN $PIP.SAV<cr>
*$RPGESP.TSK=RPGESP.TSK<cr>
*=$RPGESP.TSK<232>/RE<cr>
*^Z

Ready
```

B - MACRO-11

```
RUN $MAC.TSK<cr>
MAC>RPGESP=RPGESP<cr>
MAC>^Z

Ready

RUN $TKB.TSK<cr>
TKB>@RPGESP<cr>
TKB>^Z

Ready

RUN $PIP.SAV<cr>
*=$RPGESP.TSK<232>/RE<cr>
*^Z

Ready
```

4. You should now take whatever steps are necessary, according to your installation guidelines, to save the new version of the program.

5. The source (.B2S or .MAC) version of the program and other files used during the patching procedures should now be removed from the public structure.

DIBOL-11/DECFORM V4D
for RSTS/E V6C
PUTCM EXTERNAL UTILITY SUBROUTINE

MAXIMUM LENGTH ARGUMENTS

PROBLEM:

PUTCM subroutine allows only 87. bytes to be passed in the argument instead of 127.

SOLUTION:

Apply the following patch.

PATCH PROCEDURE:

Create the following command file for $PBUILD. Instructions for using $PBUILD are included in the RSTS/E V06C SYSTEM GENERATION MANUAL. AA-2669-TC

```
! DIBOL/DECFORM 4D
! Patch for PUTCM modules in both 4C and 4D libraries
! Allows 127. bytes instead of 87.
$FORCE
RUN $LBR.TSK
PUTCM.OLD=$DIBOLR/EX:PUTCM
^Z
RUN $PIP.SAV
PUTCM.COR=KB:
      .TITLE  PUTCM
      .IDENT  /4.01/
      .CSECT  $PUTCM

$PC=.
.=$PC+22
      .WORD   177
.=$PC+52
      .WORD   460+177
      .END
^Z
^Z
RUN $MAC.TSK
PUTCM.PAT=PUTCM.COR
^Z
RUN $PAT.TSK
PUTCM.OBJ=PUTCM.OLD/CS:120142,PUTCM.PAT/CS:7233
^Z
RUN $LBR.TSK
$DIBOLR/RP=PUTCM
^Z
RUN $PIP.SAV
PUTCM.COR,PUTCM.PAT,PUTCM.OLD,PUTCM.OBJ/DE
^Z
$END
```

FORTRAN IV V2.1
for RSTS/E V6C
COMPILER

PATCH 1 (TH)

FORTRAN fails to compile functions and subroutines with null arguments when lnline code is specified.

1. Type in the following Macro files.

```
                    .TITLE   FROOT
                    .IDENT   /04/
                    .PSECT   ROOT

.=.+372

                    .ASCII   /2 /
                    .END
```

This file will be referred to as FIXVER.MAC.

The second file is

```
                    .TITLE    CONVRT
                    .IDENT    /003A/
                    .PSECT    F13CB

S:

. = S + 1202

                    MOV       N,RØ
                    BEQ       S + 1226
                    CLR       A

                    .PSECT    F13DB

D:

. = D + 2
N:
. = D + 50
  A:

                    .END
```

It will be referred to as PATØ1.MAC

2. Assemble the patch file using MACRO-11

```
.R MACRO
*PAT01          = PAT01
*FIXVER         = FIXVER
*↑C
```

NOTE: Make sure you save copies of the modules to be patched in case something goes wrong.

3. Install the patch, using PAT, to the most recent version of the compiler module:

```
.R PAT
*CONVRT = CONVRT,PATØ1

.R PAT
*FROOT = FROOT,FIXVER
```

4. Rebuild the compiler using the procedure described in the FORTRAN Installation Guide.

5. Test the patch by compiling, linking, and running the following program:

```
A = B( )
END
```

6. Compare results as follows:

The program should compile correctly. If it does not, go back to Step 1 and begin again.

NOTE: For RSTS/E V6C make sure to:

```
.SW RT11
.SI 28
```

before starting the patch procedure.

FORTRAN IV V2.1
for RSTS/E V6C
COMPILER

PATCH 2 (TH)

PROBLEM:

FORTRAN fails to compile DO-loops with a BYTE variable

SOLUTION:

1. Type in the following Macro files.

```
                    .TITLE  FROOT
                    .IDENT  /05/
                    .PSECT  ROOT

.=.+372

                    .ASCII  /3 /
                    .END
```

This file will be referred to as FIXVER.MAC.

```
                    .TITLE   F8
                    .IDENT   /002A/
                    .PSECT   F8B

S = .
. = S +1360
A:
. = S + 5032
                    JSR   PC,A
. = S + 5050
                    JSR   PC,A
. = S + 5260
                    JSR   PC,A

                    .END
```

It will be referred to as PAT02.MAC.

2. Assemble the patch file using MACRO-11

```
.R MACRO
*PAT02    = PAT02
*FIXVER   = FIXVER
*↑C
```

NOTE: Make sure you save copies of the modules to be patched in case something goes wrong.

3. Install the patch, using PAT, to the most recent version of the compiler module:

```
.R PAT
*F8 = F8,PAT02
```

```
.R PAT
*FROOT = FROOT,FIXVER
```

4. Rebuild the compiler using the procedure described in the FORTRAN Installation Guide.

5. Test the patch by compiling, linking, and running the following program:

```
      BYTE  B
      DO  10  I=1,B
10    CONTINUE
      END
```

6. Compare results as follows:

The program should compile normally. If it does not go back to Step 1 and begin again.

NOTE: For RSTS/E V6C make sure to:

```
.SW RT11
.SI 28
```

before starting the patch procedure.

FORTRAN IV V2.1
for RSTS/E V6C
COMPILER

PATCH 3 (TH)

PROBLEM:

FORTRAN generates incorrect code for arrays used as arguments for subroutines when inline code is specified.

SOLUTION:

1. Type in the following Macro files:

```
                    .TITLE    FROOT
                    .IDENT    /06/
                    .PSECT    ROOT

.=.+372

                    .ASCII    /4 /
                    .END
```

This file will be referred to as FIXVER.MAC.

The second file is

```
                    .TITLE    REGALO
                    .IDENT    /006A/
                    .PSECT    REGI2

. = . + 6154
                    NOP
                   .END
```

It will be referred to as PAT03.MAC

2. Assemble the patch file using MACRO-11

```
.R MACRO
*PAT03    = PAT03
*FIXVER   = FIXVER
*↑C
```

NOTE: Make sure you save copies of the modules to be patched in case something goes wrong.

3. Install the patch, using PAT, to the most recent version of the compiler module:

```
.R PAT
*REGALO  =  REGALO,PAT03
```

```
.R PAT
*FROOT = FROOT,FIXVER
```

4. Rebuild the compiler using the procedure described in the FORTRAN Installation Guide.

5. Test the patch by compiling, linking, and running the following program:

```
      INTEGER    J(3)
      CALL       X(J)
      TYPE     *,J(3)
      STOP
      END
      SUBROUTINE    X(M)
      DIMENSION     M(3)
      N=21
      M(3) = N
      RETURN
      END
```

6. Compare results as follows:

The value 21 should be printed on the terminal. If it does not, then begin again at Step 1.

NOTE: For RSTS/E V6C make sure to:

```
.SW RT11
.SI 28
```

before starting the patch procedure.

FORTRAN IV V2.1
for RSTS/E V6C
OTS

SIMRT PROBLEMS - PATCH 5 (MCdW)

PROBLEM: A FORTRAN stand-alone program will give the error:

"*** A requested operation needs RT-11"

SOLUTION:

1. Type in one of the following MACRO files depending on which hardware libraries you will be using.

2. Assemble the patch file using MACRO-11

```
.SW  RT11
.SI  28
.R   MACRO
* PATØ5 = PATØ5
* ↑C
```

3. Install the patch using PAT.SAV to the OTS file corresponding to the hardware specific library you are using:

```
NHD.OBJ
EAE.OBJ
EIS.OBJ
FIS.OBJ
FPU.OBJ
```

All object files are included in the FORTRAN IV V2.1 distribution kit on account [1,2]

Make sure to always apply the patches to a copy of the distribution kit.

```
.R  PAT
XXX  =  XXX.OBJ,PATØ5.OBJ

Where  XXX =  EAE, EIS, FIS, FPU OR NHD
```

4. Rebuild the OTS using the procedure described in the Fortran installation guide. Use the recently patched module XXX.OBJ by copying it to the account where the installation will be done.

5. Test the patch by compiling, linking and running any stand alone program.

```
          PAT005      -      PATCH FOR THE NHD LIBRARY

          .TITLE  OTINIT
          .IDENT  /005A/
          .PSECT  OTS$I
S:
.=S+70
          TST     A
          .WORD   001034
          EMT     375
          .PSECT  OTS$P
.=.+46
A:
          .END
```

```
          PAT005      -      PATCH FOR THE EAE LIBRARY

          .TITLE  OTINIT
          .IDENT  /005A/
          .PSECT  OTS$I
S:
.=S+76
          TST     A
          .WORD   001034
          EMT     375
          .PSECT  OTS$P
.=.+46
A=
          .END
```

```
          PAT005      -      PATCH FOR THE EIS LIBRARY

          .TITLE  OTINIT
          .IDENT  /005A/
          .PSECT  OTS$I
S:
.=S+70
          TST     A
          .WORD   001034
          EMT     375
          .PSECT  OTS$P
.=.+46
A:
          .END
```

FORTRAN IV V2.1
for RSTS/E V6C
OTS


```
          PAT005      -      PATCH FOR THE FIS LIBRARY

          .TITLE  OTINIT
          .IDENT  /005A/
          .PSECT  OTS$I
S:
.=S+76
          TST     A
          .WORD   001034
          EMT     375
          .PSECT  OTS$P
.=.+46
A:
          .END
```

```
          PAT005      -      PATCH FOR THE FPU LIBRARY

          .TITLE  OTINIT
          .IDENT  /005A/
          .PSECT  OTS$I
S:
.=S+102
          TST     A
          .WORD   001034
          EMT     375
          .PSECT  OTS$P
.=.+46
A:
          .END
```

RSTS/E V6C
CUMULATIVE INDEX
FEBRUARY 1979

This is a complete listing of all articles for RSTS/E V6C and layered products. **Missing sequence numbers may pertain to problems unique to other versions of the same product or other major operating systems.**

IMPORTANT!

The following numerical system has been grouped in logical order denoted by the first digit (X.X.X). The second digit (X.X.X.) refers to the subcomponent and the third digit (X.X.X) denotes the issue number or sequential order.

Retracted articles are indicated: RETRACTION.

Flags are currently being installed for all articles. The flags and definitions are as follows.

M = Mandatory patch. These are critical patches which each customer is required to install.

O = Optional patch. These articles are applicable only if the reported problems have occurred at the customer site or if they are unique to his operation.

R = Restriction. These problems are not patchable in released software. Restrictions are reviewed and corrected when possible as part of the normal release cycle.

N = Note. This information may be helpful to the user.

* = Articles appeared in RSTS/E Release Notes, December 1977 (AA-5246B-TC).

+ = Articles appeared in RSTS/E Software Dispatch Review, January 1978 (AA-5514B-TC).

** = Articles appeared in CTS-500 DIBOL-11 Release Notes June 1978 (AA-55048-TC)

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PDP-11/60 ERROR LOGGING INCOMPLETE	1.1.3 M	Apr 78
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INIT.SYS PROGRAM NOTES		
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SYSTEM GENERATION		
SYSGEN NOTES		
DETERMINING IF A GENERATED MONITOR CAN BE INSTALLED; ADJUSTING MONITOR SIZE	2.2.1 N	Jun 78
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Component	Sequence	Mon/Yr
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Component	Sequence	Mon/Yr
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BATRUN		
ERROR LEVEL EXCEEDED HANDLED IMPROPERLY	14.15.1 M	Feb 78
$EOJ DOES NOT RESET ERROR CONDITION	14.15.2 O	Feb 78
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ACCTST		
ACCTST IGNORES RM03 DISKS WHEN CHECKING SYSTEM CAPACITY	15.3.1 M	Jul 78
ACOTST		
ACOTST FAILS TO EXERCISE RM03 DISKS	15.4.1 M	Jul 78
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AC2TST FAILS TO EXERCISE RM03 DISKS	15.6.1 M	Jul 78
AC3TST		
AC3TST FAILS TO EXERCISE RM03 DISKS	15.7.1 M	Jul 78
AC4TST		
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DECMRG FAILS TO ZERO DECTAPES BEFORE PROCEEDING	15.41.1 M	Feb 78
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BLOCKS GET PERMANENTLY LOCKED IN UPDATE MODE	24.7.1 M+	Jan 78
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DIBOL-11/DECFORM V1

#Articles appeared in CTS-500 DIBOL Release Notes, July 1977 (DEC-11-LCDAA-A-D).

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BASIC-PLUS-2

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CHAINING TO A BASIC-PLUS PROGRAM FROM BASIC-PLUS-2 MAY RESULT IN SCALE FACTOR INTERLOCK	27.3.4 M*	Dec 77
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DEBUG MAY IGNORE BREAK IN USER FUNCTION	27.3.7 M*	Dec 77
AN ATTEMPT TO USE A SUBSCRIPT OUT OF RANGE IN DEBUG WILL GIVE MEMORY MANAGEMENT ERRORS	27.3.8 M*	Dec 77
UNQUOTED STRINGS OR "&" AT END OF DATA STATEMENTS CAUSE READ ERRORS	27.3.9 M*	Dec 77
DEVICE "TI:" NOT PROPERLY HANDLED	27.3.10 M*	Dec 77
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PRINT USING IGNORES TRAILING ASTERISK	27.3.13 M	Jan 78
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VAL FUNCTION IGNORES SCALE FACTOR	27.3.16 M	Jan 78
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USE OF MODE A% CLAUSE IN OPEN CHANGES VALUE OF A%	27.3.20 M	Feb 78
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INTEGER ARGUMENTS MAY GIVE MEMORY ERRORS	27.3.23 M	Feb 78
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SINGLE ALPHA CHARACTERS WRONGLY ACCEPTED AS NUMERIC	27.3.29 M	May 78
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NUM1$(SINGLE PRECISION) MAY GIVE STRANGE RESULTS	27.3.31 M	May 78
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Component	Sequence	Mon/Yr
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ERROR TRAPPING OUT OF STRING FUNCTION GIVES MEMORY MANAGEMENT VIOLATION	27.4.3 M*	Dec 77
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CHAINING TO A BASIC-PLUS PROGRAM FROM BASIC-PLUS-2 MAY RESULT IN SCALE FACTOR INTERLOCK	27.4.6 M*	Dec 77
ILLEGAL FILENAME MAY NOT GIVE ERROR	27.4.7 M	Jan 78
BP2COM FAILS TO CHAIN TO INIT AT START-UP	27.4.8 O	Jan 78
STACK OVERFLOW ERRORS WHEN BP2COM IS DEFAULT RTS	27.4.9 M	Mar 78
CONTROL C OUT OF BP2COM GIVES ERRORS	27.4.11 M	Oct 78
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AN ATTEMPT TO USE A SUBSCRIPT OUT OF RANGE IN DEBUG WILL GIVE MEMORY MANAGEMENT ERRORS	27.5.2 M*	Dec 77
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THE THREAD MA1$ IS NOT IN THE RUN TIME SYSTEM	27.5.6 M	Aug 78
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POSSIBLE UNIBUS TIMEOUT FATAL ERRORS ON STRING EQUATES	27.6.1 M*	Dec 77
POSSIBLE UNIBUS TIMEOUT FATAL ERRORS ON PRINT-USINGS	27.6.2 M*	Dec 77
CLOSING A WRITE LOCKED OR HUNG DEVICE RESULTS IN A LOOP	27.6.3 M*	Dec 77
ERROR TRAPPING OUT OF STRING FUNCTION GIVES MEMORY MANAGEMENT VIOLATION	27.6.4 M*	Dec 77
LARGE TERMINAL WIDTHS PRODUCE FATAL ERRORS	27.6.5 M*	Dec 77
DEBUG MAY IGNORE BREAK IN USER FUNCTION	27.6.6 M	Jan 78
AN ATTEMPT TO USE A SUBSCRIPT OUT OF RANGE IN DEBUG WILL GIVE MEMORY MANAGEMENT ERRORS	27.6.7 M	Jan 78
UNQUOTED STRINGS OR "&" AT END OF DATA STATEMENTS CAUSE READ ERRORS	27.6.8 M	Jan 78
POSSIBLE BAD DATA IF VIRTUAL ARRAY READ CAUSES ERROR	27.6.9 M	Jan 78
PRINT USING IGNORES TRAILING ASTERISK	27.6.10 M	Jan 78
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SINGLE ALPHA CHARACTERS WRONGLY ACCEPTED AS NUMERIC	27.6.29 M	May 78
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NUM1$(SINGLE PRECISION) MAY GIVE STRANGE RESULTS	27.6.31 M	May 78
CHANNEL 15 NOT CLOSED ON ATTACH SYS CALL	27.6.32 M	May 78
XLATE FUNCTION DOES NOT WORK PROPERLY	27.6.33 M	Aug 78
RANDOMIZE DOES NOT WORK PROPERLY	27.6.34 M	Aug 78
THE THREAD MA1$ IS NOT IN THE RUN TIME SYSTEM	27.6.35 M	Sep 78
SIGN FUNCTION (SGN) NOT RETURNING CORRECT VALUES	27.6.36 M	Aug 78
UPDATE DOES NOT CORRECTLY SET RECORDSIZE	27.6.37 M	Nov 78
BASRMS OBJECT LIBRARY PATCHES		
SCRATCH STATEMENT PRODUCES UNIBUS TIMEOUT ERRORS	27.7.1 M*	Dec 77
FILE ACTIVITY AFTER AN INDEXED OPEN MAY PRODUCE CERTAIN RMS ERRORS	27.7.2 M*	Dec 77
SCQUENTIAL VARIABLE RECORDS WITH ODD LENGTHS CAUSE ERRORS	27.7.3 M	Jan 78

Component	Sequence	Mon/Yr
COBOL-11 V3		
PACKAGE NOTES		
ACCEPT STATEMENT	28.1.1 N+	Jan 78
LISTING FILES	28.1.2 N+	Jan 78
PIP CANNOT PROCESS LISTING FILES	28.1.3 N+	Jan 78
PROBLEM LIST	28.1.4 N+	Jan 78
REDUCED CONTENTION	28.1.5 N	Mar 78
COMMENT AFTER COPY	28.1.6 R	Mar 78
COPY STATEMENT	28.1.7 R	Mar 78
LUN ASSIGNMENTS FROM MACRO	28.1.8 N	May 78
ENVIRONMENT DIVISION ERRORS	28.1.9 R	May 78
COMPILER		
ABORT WHEN READING 88 LEVEL ITEM	28.2.1 M	Feb 78
START WITH RELATIVE FILES	28.2.2 M	Feb 78
FINAL STATEMENT "EXIT PROGRAM"	28.2.3 R	Mar 78
ACCEPTING CBL PROG.CBL	28.2.4 R	Mar 78
FORMAT PROGRAMS	28.2.5 R	Mar 78
COPY STATEMENT/COMMENT LINE	28.2.6 R	Mar 78
"BLANK WHEN ZERO" CLAUSE	28.2.8 R	May 78
DEFINING TOO MANY SYMBOLS	28.2.9 R	Mar 78
CALL STATEMENT MAY TERMINATE	28.2.10 N	Apr 78
UNSTRING STATEMENT	28.2.11 N	Apr 78
LARGE PROGRAM ABORTS WITH "SYSTEM ERROR 003"	28.2.12 R	Dec 78
INVALID ERROR MESSAGE IS GENERATED BY THE COMPILER	28.2.13 N	Dec 78
OBJECT LIBRARY		
OVERLAY SEGMENTATION WITH SUBROUTINES	28.3.1 M	Feb 78
IMPROPER TEST OF SIGNED SUBORDINATE DATA ITEM	28.3.2 M	Feb 78
USE PROCEDURE FAILURE	28.3.3 M	Feb 78
ACCEPT OVERWRITES	28.3.4 R	Feb 78
MULTITERMINAL SUPPORT ROUTINE "KBREAD"	28.3.5 N	Feb 78
ODL		
BUILDING COBOL-11	28.4.1 M+	Jan 78
PROGRAM USING SORT	28.4.2 R	Apr 78
DOCUMENTATION		
PDP-11 COBOL USER'S GUIDE		
REWRITING RECORDS	28.7.1 N	Mar 78
RMS-11 V1.5		
PACKAGE NOTES		
GARBAGE IN BUFFER	29.1.1 N	May 78
CURRENT ODL OF CNVBLD.ODL WILL CAUSE STACK OVERFLOW	29.1.2 M	Sep 78
RMS11.RTS		
GLUN DIRECTIVE NOT CHECKING FOR UNASSIGNED LUNS	29.2.1 M	Jul 78
OVERLAID TASKS ABORT WHEN BUILT WITH UNITS=14	29.2.2 M	Aug 78
RMSLIB.OLB		
RMS-11 FILE SPECIFICATION	29.4.1 M	Aug 78
TWO OR MORE TASKS RUNNING AT DIFFERENT PRIORITY LEVELS	29.4.2 M	Oct 78
ALTERNATE INDEXES	29.4.3 M	Jan 79
RMSUTL.OLB		
RESTORING LARGE FILES	29.6.1 M	Jul 78
ERROR OCCURRED WHEN USING RMS UTILITIES	29.6.2 N	Aug 78
RMS-11K V1.5		
PACKAGE NOTES		
RMS-11K SOFTWARE PERFORMANCE REPORTING SERVICES	29.11.1 N	Jul 78
RMS-11K MACRO PROGRAMS ENCOUNTERING AN ER$DME ERROR	29.11.2 N	Jul 78
RMSLIB.OLB		
RMS-11 FILE SPECIFICATION	29.14.1 M	Aug 78
IF (RML) OF A KEY IS GREATER THAN 127, IT IS SET INCORRECTLY	29.14.2 M	Aug 78
RMS-11 INDEXED FILE	29.14.3 M	Aug 78
UPDATE OPERATION IS PERFORMED ON A MULTI-KEY ISAM FILE	29.14.4 M	Sep 78

Component	Sequence	Mon/Yr
RMSUTL.OLB		
DFN MAY DEFAULT TO WRONG VALUES	29.16.1 M	Jul 78
INTERACTIVE DEFINE (DEF) UTILITY	29.16.2 M	Aug 78
UNASSIGNED	29.16.3	XXX XX
SORT-11 V2		
SORT UTILITY		
ERROR WITH SORT SUBROUTINES	30.2.1 M	Aug 78
ALTSEQ LINE IN SPECIFICATION FILE IS NOT ACCEPTED	30.2.2 M	Nov 78
RSTS/E DECNET/E PACKAGE		
UTILITIES		
NCP		
NCP ALLOWS INVALID NODE ADDRESS IN DEFINE NODE COMMAND	31.2.1 M	Jul 78
NCU		
NCU DOES NOT CORRECTLY HANDLE DETECTION OF ANOTHER NCU	31.3.1 M	Jun 78
NCU DOES NOT CORRECTLY SET ITS RUN BURST AND PRIORITY	31.3.2 M	Oct 78
TLK		
TLK DOES NOT CHECK TO SEE IF LSN JOB NUMBER EXISTS	31.4.1 M	Jul 78
NCROOT		
NODE NAMES OF LESS THAN 6 CHARACTERS NOT ACCEPTED	31.8.1 M	Apr 78
NETCPY DOES NOT ALLOW COPIES BETWEEN MM: AND MT:	31.8.2 M	Jul 78
NFT		
NFT PRINTS INCORRECT ERROR CODES ON FILE DELETIONS	31.10.1 N	Apr 78
NETWORK TRANSFERS OF .BAS FILES	31.10.2 N	Apr 78
NETWORK TRANSFERS OF CONTIGUOUS FILES	31.10.3 N	Apr 78
CREATE NFT/FAL OBJECT LIBRARY FOR PATCHING	31.10.4 M	Jul 78
RSTS/E-RT11 DIFFERENT BLOCK NUMBER FOR FIRST BLOCK OF FILE	31.10.5 M	Jul 78
INCORRECT DEFAULT FOR MAXIMUM RECORD SIZE ATTRIBUTE	31.10.6 M	Aug 78
FAL		
RSTS/E-RT11 DIFFERENT BLOCK NUMBER FOR FIRST BLOCK OF FILE	31.11.1 M	Jul 78
RPG II V8.02		
PACKAGE NOTES		
RPG PATCH FILES IN RSTS/E PATCH KIT	32.1.1 N	Jul 78
INDEX SEQUENTIAL FILE ERROR	32.1.2 O	Nov 78
COMPILER		
COMPILER RESTRICTION	32.2.1 R	Mar 78
MOVEL AND MOVE ADDRESSING FAILURES	32.2.2 M	Nov 78
NUMBER OF FILES LIMIT INCORRECT	32.2.3 M	Nov 78
OUTPUT RECORD AND/OR FAILURE	32.2.4 M	Nov 78
NUMBER OF DEVICE UNITS	32.2.5 M	Feb 79
NUMBER OF DEVICE UNITS	32.2.6 M	Feb 79
OTS		
SEVERAL OTS PATCHES	32.3.1 M	Nov 78
HALT MESSAGE ERROR SEVERITY	32.3.2 O	Nov 78
OVERLAY STRUCTURE DEGRADES PERFORMANCE	32.3.3 M	Nov 78
OTS ERROR REPORTING PROBLEMS	32.3.4 M	Nov 78
PAGING FOR NON-STANDARD LENGTH FORMS	32.3.5 O	Nov 78
LINE COUNTING WITH OVERPRINT	32.3.6 M	Nov 78
PLUS-ZERO OVERPUNCH PROBLEM	32.3.7 M	Nov 78
INDICATOR HANDLING PROBLEMS	32.3.8 M	Nov 78
RELATIVE FILE PROBLEMS	32.3.9 M	Nov 78
MOVE ARRAY PROBLEM	32.3.10 M	Nov 78
EXTRA LINE STARTS PRINTR FILES	32.3.11 M	Nov 78
MULTI-USER FILE ACCESS PROBLEM	32.3.12 M	Nov 78
MULTIPLE PRE-EXECUTION TABLES	32.3.13 M	Nov 78
CLOSING RMS FILES ON RSX SYSTEMS	32.3.14 M	Dec 78
SENSING OVERFLOW WHEN TOTAL TIME OUTPUT ONLY	32.3.15 M	Dec 78

Component	Sequence	Mon/Yr
RPGFNS		
LEADING ZEROES IN UNPACK DECIMAL	32.4.1 O	Nov 78
RPGASN		
ALLOCATE AND APPEND SWITCHES	32.5.1 M	Nov 78
$$X WITH NO EXTERNAL INDICATORS	32.5.2 R	Sep 78
CHANGING ENTRIES WHICH USE /TASK	32.5.3 M	Nov 78
RPGDCV		
CONVERT NEGATIVE PACKED DATA	32.6.1 M	Nov 78
ILLEGAL FILE NAME IN TAPE LABELS	32.6.2 M	Feb 79
RPGDMP		
ILLEGAL VARIABLE NAME IN BASIC-PLUS-2 SOURCE	32.7.1 M	Dec 78
RPGESP		
SPORADIC CONCATENATION OF STATEMENTS	32.8.1 M	Feb 79
PROBLEM DELETING FIRST LINE	32.8.2 M	Feb 79
APL-11 V1		
PACKAGE NOTES		
ACCEPTING 8-BIT ASCII	33.1.1 N+	Jan 78
APL.RTS RUN-TIME SYSTEM PATCHES		
"SYSTEM ERROR"S GENERATED BY NULL LINE ELEMENTS	33.2.1 M+	Jan 78
INTERNAL MEMORY ALLOCATION PROBLEMS	33.2.2 M+	Jan 78
ERRONEOUS "DEFINITION ERROR" DURING FUNCTION EDITING	33.2.3 M+	Jan 78
SYSTEM ERROR ON PARAMETER RETURN	33.2.4 M	May 78
DOCUMENTATION		
ERROR IN THE APL-11 PROGRAMMER'S REFERENCE MANUAL	33.3.1 N	Jun 78
DATATRIEVE-11 V1		
DIVISION WITH NUMERATOR OF 0	34.1.1 M	Mar 78
INTERNAL ERROR	34.1.2 M	Mar 78
DYNAMIC MEMORY	34.1.3 M	Mar 78
INTERNAL BLOCKS	34.1.4 M	Mar 78
EXHAUSTED SPACE	34.1.5 M	Mar 78
CERTAIN ASSIGNMENTS MAY CAUSE INTERNAL ERROR	34.1.6 M	Mar 78
INTERNAL ERRORS	34.1.7 M	May 78
THE DATATRIEVE SEQUENCE FIND...; SELECT; PRINT ALL; MODIFY...; FAILS	34.1.8 M	May 78
SPACE IS EXHAUSTED	34.1.9 M	May 78
PRECISION ERRORS	34.1.10 M	May 78
SORT FAILS WITH THE MESSAGE "SORT OUTPUT OPEN FAILED"	34.1.11 M	May 78
CORRUPTED DATA DICTIONARY	34.1.12 M	Jun 78
RECOVERY FROM A CORRUPTED DATA DICTIONARY ELEMENT	34.1.13 M	Jun 78
"AT BOTTOM" OF COMMAND	34.1.14 R	Jul 78
DATATRIEVE REPORT WRITER FEATURE	34.1.15 R	Jul 78
SCALE FACTORS	34.1.16 M	Aug 78
FLOATING POINT DIVISION	34.1.17 M	Aug 78
DATATRIEVE ALGORITHM FOR FIXED POINT DIVISION	34.1.18 M	Aug 78
REPORT WRITER	34.1.19 M	Aug 78
ARVLCP: EXPECTED VL BLOCK	34.1.20 R	Dec 78
WISE V1		
UPDATE		
AZX INDEX EXISTENCE FLAG	35.2.1 M	May 78
PROTECTION OF VARIABLE-LENGTH FIELDS	35.2.2 M	May 78
CHANGING CONTENTS OF PROTECTED DATA FIELDS	35.2.3 M	May 78
PROTECTION OF VARIABLE LENGTH FIELDS	35.2.4 M	Aug 78
SKLTON		
FNQ9% FUNCTION	35.3.1 M	May 78
REQUES		
REQ3 DECODING PROBLEM	35.4.1 M	May 78
FIELDNAME ERROR	35.4.2 M	Jun 78
IMPROPER USE OF THE LABEL OPTION	35.4.3 R	Oct 78

Component	Sequence	Mon/Yr
RGRADE		
REGRADE SERIES OF PROGRAMS DOES NOT CALCULATE TOTCRED	35.5.1 M	Jun 78
RGRADE SERIES OF PROGRAMS	35.5.2 M	Aug 78
REGSTR		
DIMENSIONAL ARRAYS	35.6.1 M	Aug 78
NETFIL		
CREATING UPX	35.7.1 M	Aug 78

DIBOL-11/DECFORM V4D

PACKAGE NOTES		
CTRL/C TRAPPING	36.1.1 N**	Jun 78
SYSTEM CONTROL PROGRAMS	36.1.2 N**	Jun 78
IMPROPER USE OF RUNJB	36.1.3 N**	Jun 78
DATA TYPE COMPATIBILITY	36.1.4 N**	
DECFORM DATA ENTRY FOR PROGRAMS	36.1.5 N**	Jun 78
ZONED ASCII ARITHMETIC FOR BP2COM V1.50	36.1.6 O	Dec 78
ZONED ASCII ARITHMETIC FOR BASIC2 V1.50	36.1.7 O	Dec 78
DOCUMENTATION		
INDIRECT COMMAND FILE SPECIFICATIONS	36.2.1 M	Jan 79
BUILD PROCEDURES		
DBUILD SUPERCESSION	36.3.1 N**	Jun 78
DICOMP SUPERCESSION	36.3.2 N**	Jun 78
DIBOLR		
RSTAT VALUES	36.5.1 N**	Jun 78
RMS CARRIAGE CONTROL ATTRIBUTE	36.5.2 N**	Jun 78
PROC NUMBER	36.5.3 N**	Jun 78
OPTIONAL PATCH TO EXPAND CALL/RETURN LIMIT (R6 STACK SPACE)	36.5.4 O**	Jun 78
MAXIMUM LENGTH ARGUMENTS	36.5.5 M	Feb 79
DECFORM		
FOCOMR.MLB DECFORM LIBRARY	36.6.1 N**	Jun 78
NO RMS SEQUENTIAL FILE UPDATES	36.6.2 N**	Jun 78
FILE VALIDATION RECORD SIZE ERROR	36.6.3 N**	Jun 78
RMS NOTES		
RMS VERSION IS 1.5	36.7.1 N**	Jun 78
OTHER RTS's AND ODL's	36.7.2 N**	Jun 78
NO KEY SWITCHING	36.7.3 N**	Jun 78
CTS-500 DIBOL-11 USER'S GUIDE		
CLARIFICATION OF SAMPLE ODL FILE	36.9.1 M	Dec 78

DECAL V2

QUIZ		
QUIZ01 DOES NOT INTERPRET AUTHOR VARIABLES CORRECTLY	37.2.1 M	Sep 78
CREATE		
END-OF-BLOCK INDICATOR	37.3.1 M	Aug 78
CREATE AND LEDIT1	37.3.2 M	Sep 78
SORT1		
SORT1 GENERATES A FATAL SORT ERROR	37.4.1 M	Sep 78

BASIC-PLUS-2 V1.5

BASIC2 COMPILER PATCHES		
SOME MIXED MODE ASSIGNMENT STATEMENTS GENERATE NO ERRORS	38.2.1 M	Nov 78
THE COMPILER EXPANSION OF A SYSTEM WIDE LOGICAL DEVICE NAME IS INCORRECT	38.2.2 M	Nov 78
OPTIMIZATION OF CONSTANTS CAN CAUSE ERRORS	38.2.4 M	Nov 78

Component	Sequence	Mon/Yr
BASIC2 RUN-TIME SYSTEM PATCHES		
NAME AS STATEMENT DOES NOT WORK PROPERLY, AND MAGTAPE (BACKSPACE) FUNCTION DOES NOT WORK PROPERLY	38.3.1 M	Nov 78
UNLOCK STATEMENT DOES NOT WORK PROPERLY	38.3.2 M	Oct 78
DEBUG LET STATEMENTS DO NOT WORK PROPERLY	38.3.3 M	Oct 78
UNASSIGNED	38.3.4	XXX XX
A NEGATIVE INDEX IN AN ON GOTO STATEMENT CAN CAUSE A PROGRAM CRASH	38.3.5 M	Nov 78
SGN FUNCTION DOES NOT WORK PROPERLY UNDER DOUBLE PRECISION	38.3.6 M	Nov 78
A NULL STRING PASSED TO A SUBPROGRAM WILL NOT BE UPDATABLE	38.3.7 M	Nov 78
MODE 8 PROCESSING DOES NOT WORK PROPERLY	38.3.8 M	Nov 78
NAME AS STATEMENT DOES NOT WORK PROPERLY, AND MAGTAPE (BACKSPACE) FUNCTION DOES NOT WORK PROPERLY	38.3.9 M	Nov 78
BP2COM RUN-TIME SYSTEM PATCHES		
SYSTEM SECURITY EXPOSURE WITH BASIC-PLUS-2 KEYBOARD MONITOR	38.4.1 M	Dec 78
A NEGATIVE INDEX IN AN ON GOTO STATEMENT CAN CAUSE A PROGRAM CRASH	38.4.2 M	Nov 78
A NULL STRING PASSED TO A SUBPROGRAM WILL NOT BE UPDATABLE	38.4.3 M	Nov 78
BASIC2 OBJECT LIBRARY PATCHES		
DEBUG LET STATEMENTS DO NOT WORK PROPERLY	38.5.1 M	Oct 78
BP2COM OBJECT LIBRARY PATCHES		
NAME AS STATEMENT DOES NOT WORK PROPERLY, AND MAGTAPE (BACKSPACE) FUNCTION DOES NOT WORK PROPERLY	38.6.1 M	Oct 78
UNLOCK STATEMENT DOES NOT WORK PROPERLY	38.6.2 M	Oct 78
DEBUG LET STATEMENTS DO NOT WORK PROPERLY	38.6.3 M	Oct 78
UNASSIGNED	38.6.4	XXX XX
A NEGATIVE INDEX IN AN ON GOTO STATEMENT CAN CAUSE A PROGRAM CRASH	38.6.5 M	Nov 78
SGN FUNCTION DOES NOT WORK PROPERLY UNDER DOUBLE PRECISION	38.6.6 M	Nov 78
A NULL STRING PASSED TO A SUBPROGRAM WILL NOT BE UPDATABLE	38.6.7 M	Nov 78
MODE 8 PROCESSING DOES NOT WORK PROPERLY	38.6.8 M	Nov 78
BASRMS OBJECT LIBRARY PATCHES		
WRITING PAST PHYSICAL END OF MAGTAPE IS NOW TRAPPABLE	38.7.1 M	Oct 78
WRITING PAST PHYSICAL END OF MAGTAPE IS NOW TRAPPABLE	38.7.2 M	Nov 78

DIBOL-11/DECFORM V4C

PACKAGE NOTES		
CTRL/C TRAPPING	39.1.1 N**	Jun 78
SYSTEM CONTROL PROGRAMS	39.1.2 N**	Jun 78
IMPROPER USE OF RUNJB	39.1.3 N**	Jun 78
DATA TYPE COMPATIBILITY	39.1.4 N**	Jun 78
DECFORM DATA ENTRY FOR PROGRAMS	39.1.5 N**	Jun 78
ZONED ASCII ARITHMETIC FOR BP2COM V1.50	39.1.6 O	Dec 78
ZONED ASCII ARITHMETIC FOR BASIC2 V1.50	39.1.7 O	Dec 78
CTSPIP		
INDIRECT COMMAND FILE SPECIFICATIONS	39.2.1 M	Jan 79

COBOL V3.1

BUILD PROCEDURES		
DBUILD SUPERCESSION	39.3.1 N**	Jun 78
DICOMP SUPERCESSION	39.3.2 N**	JUN 78
DIBOL		
OPTIONAL PATCH TO EXPAND CALL/RETURN LIMIT (R6 STACK SPACE)	39.5.1 O**	Jun 78
DECFORM		
FOCOMP.MLB DECFORM LIBRARY	39.6.1 N**	Jun 78

Component	Sequence	Mon/Yr
COBOL-11 V3.1		
COMPILER		
INVALID ERROR MESSAGE IS GENERATED BY THE COMPILER	40.2.1 N	Dec 78
MULTIPLE OCCURS CLAUSES	40.2.2 M	Dec 78
USER'S GUIDE		
KBREAD SUBROUTINE RETURNS AN ERROR NO. 31	40.7.1 N	Dec 78
FORTRAN IV/RSTS/E V2.1		
PACKAGE NOTES		
FORTRAN IV V2.1 MAINTENANCE RELEASE	41.1.1 N	Dec 78
COMPILER		
PATCH 1	41.2.1 M	Feb 79
PATCH 2	41.2.2 M	Feb 79
PATCH 3	41.2.3 M	Feb 79
OTS		
SIMRT PROBLEMS - PATCH 5	41.3.1 M	Feb 79
RPG-11 V7.06		
RPG II V7.06 CAN NOT BE INSTALLED ON RSTS/E V06C-03	01 N*	Dec 77

digital
Software Product Description

PRODUCT NAME: RSTS/E-2780 (CTS-500/2780), Version 3.0 **SPD 10.50.3**

SECTION A: RSTS/E-2780 (CTS-500/2780) SPECIFIC INFORMATION

DESCRIPTION:

The RSTS/E-2780 Emulator runs as a user job under a suitably equipped RSTS/E or CTS-500 system, providing emulation of an IBM 2780 remote batch terminal. It will support transmission and reception from/to card reader and line printer and/or mass storage devices such as disk and magnetic tape. General characteristics of DIGITAL's PDP-11 based 2780 products are given in Section B.

The RSTS/E-2780 transmits files stored on any medium supported by the host operating system. It stores files on any output medium supported by RSTS/E except DECtape. Magnetic tape operation may cause timeout errors, unless the tape is positioned at the start of the file when transmission or reception is about to begin. In addition, files can be printed on any line printer supported by the host operating system except the LS11, a 60-line-per-minute printer. (Such printers can be used in off-line mode, however, wherein they print files temporarily stored on disk or tape.)

RSTS/E-2780 also supports a spooling feature, wherein users running with the RSTS/E-2780 can queue one or more files for subsequent transmission.

Owing to the processing requirements of the 2780 protocol, RSTS/E (CTS-500) response time may incur perceptible degradation during transmission or reception.

MINIMUM HARDWARE REQUIRED:

- Any valid RSTS/E (CTS-500) configuration with sufficient memory for the expected number of users, plus 16K bytes of memory to accommodate the emulator.
- DP11, DU11, or DUP11 Synchronous Line Interface
- KG11-A Communications Arithmetic Element

OPTIONAL HARDWARE:

Any mass storage device except DECtape supported by RSTS/E (or CTS-500) can be used as a source or target of transmission files.

PREREQUISITE SOFTWARE:

One of the following operating systems:

- RSTS/E Operating System, Version 6B
- CTS-500 Operating System, Version 3.0

OPTIONAL SOFTWARE:

None

TRAINING CREDITS:

No training credits are included in the 2780 Emulator Software License charges. Training courses are not required in order to operate the product.

SUPPORT CATEGORY:

A — Software Support will be provided as stated in the Software Support Categories Addendum to this SPD.

UPDATE POLICY:

Software Updates, if any, released by DIGITAL during the one (1) year period following installation, will be provided to the customer for a media charge (includes no installation). After the first year, updates, if any, will be made available according to then prevailing DIGITAL policies.

ORDERING INFORMATION:

All binary licensed software, including any subsequent updates, is furnished under the licensing provisions of DIGITAL's Standard Terms and Conditions of Sale, which provide in part that the software and any part thereof may be used on only the single CPU on which the software is first installed, and may be copied, in whole or in part (with the proper inclusion of the DIGITAL copyright notice and any DIGITAL proprietary notices on the software) only for use on such CPU. All source licensed software is furnished only under the terms and conditions of a separate Software Program Sources License Agreement between Purchaser and DIGITAL.

Options with no support services are only available after the purchase of one supported license. When a software license is ordered without support services, the category of support applicable to such software is Category C.

A single-use license only option is a license to copy the software previously obtained under license, and use such software in accordance with DIGITAL's Standard Terms and Conditions of Sale. The category

of support applicable to such copied software is Category C.

Source and/or listing options are only available after a source license agreement is in effect.

The following key (D, E, F, Q, T, V, Y, Z) represents the distribution media for the product and must be specified at the end of the order number, e.g., QPD10-AD = binaries on 9-track magnetic tape.

D = 9-track Magnetic Tape
E = RK05 Disk Cartridge
F = 7-track Magnetic Tape
Q = RL01 Disk Cartridge
T = RK06 Disk Cartridge
V = RK07 Disk Cartridge
Y = RX01 Floppy Diskette
Z = No hardware dependency

QPD10 -A— Single-use license, binaries, documentation, support services (media: D, E, F, Q, T, V) and (media: Y) for RPR02, RP04, RP05 or RP06 disk-based CTS-500 systems with RX11, no RK11 and no magnetic tape.

QPD10 -C— Single-use license, binaries, documentation, no support services (media: D, E, F, Q, T, V) and (media: Y) for RPR02, RP04, RP05 or RP06 disk-based CTS-500 systems with RX11, no RK11 and no magnetic tape.

QPD10 -D— Single-use license only, no binaries, no documentation, no support services (media: Z)

Source/Listing Options

QPD10 -E— All sources (media: D, E, Q, T, V)

QPD10 -F— Listings (media: R)

Update Options

Users of RSTS/E-2780 (CTS-500-2780) whose specified Support Category warranty has expired may order under license the following software update at the then current charge. The update is distributed in source or binary form on the appropriate medium and includes no installation or other services unless specifically stated.

QPD10 -H— Binaries, documentation (media: D, E, F, Q, V, Y)

QPD10 -H— Right to copy for single-use (under existing license) no binaries, no documentation, no support services (media: Z)

QPD10 -N— Sources update (media: D, E, Q, V)

Users of RSTS/E-2780 (CTS-500-2780) whose specified Support Category warranty has not expired may order under license the following software update for the then current media charge. The update is distributed in binary form on the appropriate medium and includes no installation or other services unless specifically stated.

QPD10 -W— Binaries, documentation (media: D, E, F, Q, V, Y)

ADDITIONAL SERVICES:

None

ADDENDUM
SOFTWARE SUPPORT CATEGORIES

Each software product (hereinafter 'SOFTWARE') with a designated Support Category A or B in the applicable Software Product Description (SPD) existing at the time of order will be the current release at the time of delivery and will conform to the SPD. DIGITAL's sole obligation shall be to correct defects (nonconformance of the SOFTWARE to the SPD) as described below. Any SOFTWARE with a designated Support Category C will be furnished on an 'as is' basis.

For SOFTWARE with a designated Support Category A or B, DIGITAL will provide the services set forth below without additional charge.

CATEGORY A

1. Upon notification by customer to the nearest DIGITAL office that the computer system, including all required prerequisite hardware and software, is ready for the installation of the SOFTWARE, DIGITAL will install such SOFTWARE in any location within the contiguous forty-eight (48) United States, the District of Columbia, or a country in which DIGITAL or a subsidiary of DIGITAL has a software service facility. The notification must be received by DIGITAL and the system must be ready for installation within thirty (30) days after the delivery of the SOFTWARE to customer or DIGITAL will have no obligation to install. Installation will consist of: (1) verification that all components of the SOFTWARE have been received by customer, (2) loading the SOFTWARE, and (3) executing a DIGITAL sample procedure.
2. During the ninety (90) day period after installation, if the customer encounters a problem with the current unaltered release of the SOFTWARE which DIGITAL determines to be a defect in the SOFTWARE, DIGITAL will provide the following remedial service (on site where necessary): (1) if the SOFTWARE is inoperable, apply a temporary correction (TC) or make a reasonable attempt to develop an emergency by-pass, and (2) assist the customer to prepare a Software Performance Report (SPR) and submit it to DIGITAL.
3. During the one (1) year period following installation, if the customer encounters a problem with the SOFTWARE which his diagnosis indicates is caused by a SOFTWARE defect, the customer may submit an SPR to DIGITAL. DIGITAL will respond to problems reported in SPRs which are caused by defects in the current unaltered release of the SOFTWARE via the Maintenance Periodical for the SOFTWARE, which reports SPRs received, code corrections, temporary corrections, generally useful emergency by-passes and/or notice of the availability of corrected code. Software Updates, if any, released by DIGITAL during the one (1) year period, will be provided to the customer on DIGITAL's standard distribution media as specified in the applicable SPD. The customer will be charged only for the media on which such updates are provided, unless otherwise stated in the applicable SPD, at DIGITAL's then current media prices.

CATEGORY B

During the one (1) year period following delivery, the services provided to the customer will be the same as set forth in 3 above.

CATEGORY C

SOFTWARE is provided on an 'as is' basis. Any software services, if available, will be provided at the then current charges.

DIGITAL shall have the right to make additional charges for any additional effort required to provide services resulting from customer use of other than current unaltered release of the SOFTWARE operated in accordance with the SPD.

SECTION B: 2780 Emulator GENERAL DESCRIPTION

The 2780 Emulator is a collective name for the set of software products that allows various DIGITAL operating systems to emulate the operation of an IBM 2780 Model 1 or 2 Data Transmission Terminal with the multiple record option. Emulation of the 2780 permits communication between such DIGITAL systems and (1) the following IBM Remote Job Entry programs supporting the device: OS/HASP, OS/ASP, DOS-POWER and OS/RJE, or (2) a second DIGITAL-supplied 2780 emulator.

The following DIGITAL operating systems support the emulator for the 2780 Model 2: RSTS/E (CTS-500), IAS, RSX-11M, RT-11 and DECsystem-10[1]. In addition, a CTS-300 based emulator (Model 1 only) and a LSI-11 based RT-11 (CTS-300) 2780 are available.

Section A gives the distinguishing features of the particular 2780 emulator described by this SPD. The remainder of this section describes items common to all PDP-11 2780 emulators.

OPERATION:

After the system operator starts the 2780 Emulator, it solicits and responds to console command input.

Transmission: All 2780 emulators can transmit data from card readers, if they are present in the system, and transmit data files from disk storage devices. The RSTS/E 2780 Emulator has the added capability of spooling or queuing transmission requests from timesharing users.

All 2780 emulators transmit EBCDIC and binary data. Since the host systems use the ASCII character set, however, they accept ASCII characters for transmission and then perform automatic character conversion. No conversion is performed on binary data.

The physical units of data that are transmitted are called blocks. Blocks are divided into logical units called records. Maximum block size is 400 characters; maximum record size when transmitting to IBM operating systems is 80 characters, and when communicating with other 2780s or 2780 emulators, the record size is variable up to 132 characters. Records that are less than maximum allowable size are either extended to the maximum by blank filling, or transmitted as is, at the user's option. Up to seven (7) records can be transmitted per block.

Reception: All 2780 emulators can print received character data on a line printer, if one is present in the system. In most cases, the software simulates limited-function vertical format control (VFC) by providing Top of Form (Skip to Channel 1), Print-and-Space-1, -2, or -3 line(s) functions, and Skip to Channels 2 through 8, all of which cause module 8 line space operation--i.e., skip to the next line which is an even multiple of 8 from Top-of-Form. Both 64- and 96-character line printers are supported. However, support of line printers which are too slow to keep up with the speed of the communications link (i.e., LS11 and LV11) is limited to off-line or DIGITAL-to-DIGITAL usage, because their speed can cause timeout errors in an IBM system.

All emulators write files onto disk storage devices. In such cases, a separate file is created for each received file.

All 2780 emulators receive EBCDIC or binary data. They can automatically convert EBCDIC data to ASCII upon reception, or EBCDIC data can be written to a file by the use of the binary mode.

Maximum receive block size is 400 characters. The maximum receive record size is a two-character escape code, plus 132 data characters. Up to seven (7) records can be received per block.

All emulators provide automatic answer to dial-in rings.

Modems and Data Links: All 2780 emulators support operation over synchronous data links, in point-to-point contention mode only, at speeds up to 4800 bps (except the LSI-11 based RT-11/2780 which runs at 2400 bps). Bell 201 or 208 modems or equivalent are specified. Operation with other modems is not precluded, but warranted support does not apply in these cases.

Data link control characters are supplied automatically by the emulators. On transmission errors, the emulators will re-try up to seven (7) times before declaring the link dead.

Configuring PDP-11 2780 Emulator Systems: Configuration requirements for each emulator are defined in Section A. Briefly, the PDP-11 2780 emulators require the following hardware beyond the standard operating system configurations:

- DP11, DU11, DUP11, or DUV11 Synchronous Line Interface
- KG11-A Communications Arithmetic Element (except the LSI-11 based RT-11/2780)
- KW11-L or KW11-P clock (except the LSI-11 based RT-11/2780)
- 16K bytes of additional memory beyond the minimum may be required. (Refer to Section A.)

TRAINING CREDITS:

No training credits are included in the 2780 Emulator Software License charges. Training courses are not required in order to operate the product.

SUPPORT CATEGORY:

Installation will be deemed complete in the case of connection with IBM when:

- The customer's 360/370 configuration includes a 2701 Data Adapter, a 2703 Transmission Control Unit, a 3704 or 3705 Transmission Controller, or a System/370 Model 135 Integrated Communications Adapter.

[1]Limited to 2780 mode only for PDP-11 communication.

- A DIGITAL sample procedure included with the software has been successfully executed.

Installation in DIGITAL-to-DIGITAL operation will be deemed complete when DIGITAL-supplied files can be transmitted successfully in both directions.

CUSTOMER RESPONSIBILITIES:

Before installation of the Software, the customer must:

1. Obtain, install, and demonstrate operational to DIGITAL's satisfaction any modems and other equipment and facilities necessary to interface to DIGITAL's communications line interfaces and terminals.
2. Install or have installed all hardware, including terminals, to be used on the system.
3. Generate for terminal support any and all IBM systems that will be communicating with the emulator, to DIGITAL's satisfaction.
4. Make available to DIGITAL personnel all hardware, including communications facilities and terminals, to be used during installation and acceptance testing for a reasonable period of time each day as mutually agreed upon by DIGITAL and customer, until acceptance criteria are satisfied.
5. Provide access privileges and machine time on any and all IBM systems on which the installation is to be performed.
6. When communicating with IBM, make available to DIGITAL personnel an IBM 360/370 job stream with data, to run via the 2780 Emulator on-line to a 360/370 in accordance with the configuration specifications outlined above.

Delays caused by any failure to meet these responsibilities will be charged at the then prevailing rate for time and materials.

The following table summarizes some of the features of the PDP-11 2780 Emulators.

CHARACTERISTIC EMULATOR NAME	MINIMUM CONFIGURATION SUMMARY (see Section A)	HOST OPERATING SYSTEM	MAXIMUM SPEED	OUTPUT DEVICES SUPPORTED	INPUT DEVICES SUPPORTED	FORMS CONTROL SUPPORTED	SPOOLING SUPPORTED	MODEMS AND IBM OPERATING SYSTEMS SUPPORTED
RSX-11D/2780 RSX-11M/2780 IAS/2780	Any standard RSX-11D or RSX-11M configuration with the following memory: 11M - 16KW 11D - 56KW IAS - 72KW DU11, DP11 or DUP11, KG11	RSX-11D or RSX-11M or IAS	4800 bps	Line printer or any Files-11 device except DECtape and paper tape punch	Card reader or any other Files-11 device except DECtape	Top of Form, Skip 1, 2, or 3 lines, Skip modulo 8, Horizontal forms control	Yes on reception, No on transmission	Bell 208 or 201 or equivalent; OS/RJE, OS/HASP, DOS/POWER, OS/ASP
RSTS/2780 (CTS-500/2780)	Minimal RSTS/E or CTS-500 system consistent with number of users and expected application, plus 8K words of memory, DU11, DUP11, or DP11, KG11	RSTS/E (CTS-500)	4800 bps	Line printer or any disk except flexible diskette, magnetic tape (limited)	Card reader or any disk, magnetic tape (limited)	Top of Form, Skip 1, 2, or 3 lines, Horizontal forms control	Yes	Same as above
RT-11/2780 (CTS-300/2780)	Disk-based Foreground/ Background RT-11 or COS-350 system with 16K words of memory, DU11 or DP11 or DUP11, KW11-L, KG11-A	RT-11 (CTS-300)	4800 bps	Line printer or any disk supported by RT-11 (CTS-300)	Card reader, paper tape reader, or any disk supported by RT-11 (CTS-300)	Top of Form, Skip 1, 2, or 3 lines, Skip modulo 8, Horizontal forms control	No	Same as above
RT-11 (CTS-300) LSI-2780	Disk-based Foreground/ Background RT-11 system with 16K words of memory, DUV11, REV-11 (AORC)	RT-11 (CTS-300)	2400 bps	Line printer or any disk supported by RT-11 (CTS-300)	Any disk supported by RT11 (CTS-300)	Top of Form, Skip 1, 2, or 3 lines, Skip modulo 8, horizontal forms control	No	Same as above

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Software Product Description

PRODUCT NAME: PDP-11 COBOL, Version 4.0 **SPD 12.40.10**

DESCRIPTION:

COBOL is a well-defined standard computer language for business data processing. The PDP-11 COBOL compiler is based on the specifications published by the American National Standards Institute (ANSI) in the document "American National Standard COBOL," X3.23-1974. PDP-11 COBOL operates under the control of the RSX-11M, RSTS/E, CTS-500, or IAS operating systems.

PDP-11 COBOL is properly defined as a subset of full ANS COBOL and meets the ANS-74 low-level specifications with the following additions (+) and omissions (-):

+ Full Level 2 Nucleus Module

+ Full Level 2 Table Handling Module

+ Full Level 2 Sequential I/O Module

+ Full Level 2 Relative I/O Module

+ Full Level 2 Indexed I/O Module

+ Full Level 2 Segmentation Module

+ Full Level 1 Library Module, with partial Level 2 REPLACING facility

+ Full Level 1 Interprogram Communication Module

+ Cross Reference Compilation Listing

+ DISPLAY with NO ADVANCING

- RERUN option in I/O-CONTROL paragraph not implemented

The PDP-11 COBOL language processor is composed of a compiler and an Object Time System/Library.

The PDP-11 COBOL compiler produces an object module from a source program. The compiler checks each program line for syntax errors and returns an appropriate message if an error is found. The user can then correct the program (if necessary) and compile it. Program compilations result in an object module that can be linked and executed at the operating system command level.

PDP-11 COBOL allows the user to write subprograms in both COBOL or in MACRO assembly language. These subprograms are accessed with the CALL statement.

PDP-11 COBOL file I/O operations are controlled through the RMS data management software. This method of Record I/O supports sequential, relative, and indexed file organizations. Note that indexed files require the presence of RMS-11K on the system. RMS features also include primary and alternate keys, fixed and variable length records, and record mapping. RMS-11K is an optionally supported facility of the RSX-11M, RSTS/E, CTS-500 and IAS operating systems.

PDP-11 COBOL also includes:

- An interactive debugger that allows a user to set and remove breakpoints and examine and change program variables.
- CBLMRG, which merges ODL (Overlay Descriptor Language) files generated by COBOL compilations into a single ODL file.
- RFRMT, which converts PDP-11 terminal format COBOL programs into conventional ANS COBOL program format.

MINIMUM HARDWARE REQUIRED:

One of the following operating system configurations:

- Any valid IAS operating system configuration.
- Any valid RSX-11M operating system configuration that includes the extended instruction set. If the system device is an RK05 disk, one additional RK05 disk drive beyond the system minimum configuration is required. This is a total of three RK05 disk drives on an RK05-only configuration.
- Any valid RSTS/E or CTS-500 operating system configuration that includes the extended instruction set. On dual RK05 configurations, one of the following is also required:
  1. One (1) TJU16 (TWU16 for 11/70) magnetic tape controller and TU16 transport
  2. One (1) TMA11 magnetic tape controller and TU10 or TS03 transport

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3. One (1) RX11 flexible diskette system (on CTS-500 systems only), or
4. One (1) additional RK05 disk drive, for a system total of three (3) RK05 drives

Any configuration must include the following:

- A user area of at least 56K bytes of memory.
- At least 3000 free blocks of on-line disk storage on the public disk structure.
- An LP11 line printer.

OPTIONAL HARDWARE:

Supports any mass storage, unit record or terminal device supported by the prerequisite software with the following exception: DECtape.

PREREQUISITE SOFTWARE:

One of the following operating systems that includes RMS-11:

- RSTS/E, Version 6C or later
- CTS-500, Level 3A or 3B
- RSX-11M, Version 3.1 or later
- IAS, Version 2.0 or later

OPTIONAL SOFTWARE:

- RMS-11K for multikey ISAM support
- SORT-11, Version 2.0

TRAINING CREDITS:

None

SUPPORT CATEGORY:

A — Software Support will be provided as stated in the Software Support Categories Addendum to this SPD.

UPDATE POLICY:

Software Updates, if any, released by DIGITAL during the one (1) year period following installation, will be provided to the customer for a media charge (includes no installation). After the first year, updates, if any, will be made available according to then prevailing DIGITAL policies.

ORDERING INFORMATION:

All binary licensed software, including any subsequent updates, is furnished under the licensing provisions of DIGITAL's Standard Terms and Conditions of Sale, which provide in part that the software and any part thereof may be used on only the single CPU on which the software is first installed, and may be copied, in whole or in part (with the proper inclusion of the DIGITAL copyright notice and any DIGITAL proprietary notices on the software) only for use on such CPU. All source licensed software is furnished only under the terms and conditions of a separate Software Program Sources License Agreement between Purchaser and DIGITAL.

Options with no support services are only available after the purchase of one supported license. When a software license is ordered without support services, the category of support applicable to such software is Category C.

A single-use license only option is a license to copy the software previously obtained under license, and use such software in accordance with DIGITAL's Standard Terms and Conditions of Sale. The category of support applicable to such copied software is Category C.

The following key (D, E, F, Q, T, V, Z) represents the distribution media for the product and must be specified at the end of the order number, e.g., QP011-AD = binaries on 9-track magnetic tape.

D = 9-track Magnetic Tape
E = RK05 Disk Cartridge
F = 7-track Magnetic Tape
Q = RL01 Disk Cartridge
T = RK06 Disk Cartridge
V = RK07 Disk Cartridge
Z = No hardware dependency

For RSTS/E or CTS-500 Systems:

QP011 -A— Single-use license, binaries, documentation, support services (media: D, E, F, Q, T, V)

QP011 -C— Single-use license, binaries, documentation, no support services (media: D, E, F, Q, T, V)

QP011 -D— Single-use license only, no binaries, no documentation, no support services (media: Z)

For RSX-11M Systems:

QP012 -A— Single-use license, binaries, documentation, support services (media: D, E, Q, T, V)

QP012 -C— Single-use license, binaries, documentation, no support services (media: D, E, Q, T, V)

QP012 -D— Single-use license only, no binaries, no documentation, no support services (media: Z)

For IAS Systems:

QP013 -A— Single-use license, binaries, documentation, support services (media: D, E, T)

QP013 -C— Single-use license, binaries, documentation, no support services (media: D, E, T)

QP013 -D— Single-use license only, no binaries, no documentation, no support services (media: Z)

Update Options

Users of PDP-11 COBOL, Version 3.1, whose specified Support Category warranty has expired may order the following software update at the then current charge for such update, for use under the existing license. Except where the medium is designated as Z, the update is distributed in source or binary form on the appropriate medium. A software update where the medium is designated as Z grants the user of PDP-11 COBOL, Version 3.1, the right to copy the previously ordered QP011-H, QP012-H, QP013-H, QP011-W, QP012-W, or QP013-W software update for use on an additional single CPU for which a PDP-11 COBOL li-

cense has been obtained. No installation or other services are included unless specifically stated otherwise.

For RSTS/E or CTS-500 Systems:

QP011 -H— Binaries, documentation (media: D, E, F, Q, T, V)

QP011 -H— Right to copy for single use (under existing license), no binaries, no documentation, no support services (media: Z)

For RSX-11M

QP012 -H— Binaries, documentation (media: D, E, Q, T, V)

QP012 -H— Right to copy for single use (under existing license), no binaries, no documentation, no support services (media: Z)

For IAS Systems:

QP013 -H— Binaries, documentation (media: D, E, T)

QP013 -H— Right to copy for single-use (under existing license), no binaries, no documentation, no support services (media: Z)

Users of PDP-11 COBOL, Version 3.1, whose specified Support Category warranty has not expired may order under license the following software update for the then current media charge. The update is distributed in source or binary form on the appropriate medium and includes no installation or other services unless specifically stated.

For RSTS/E or CTS-500 Systems:

QP011 -W— Binaries, documentation (media: D, E, F, Q, T, V)

For RSX-11M Systems:

QP012 -W— Binaries, documentation (media: D, E, Q, T, V)

For IAS Systems:

QP013 -W— Binaries, documentation (media: D, E, T)

Miscellaneous Options

For RSTS/E or CTS-500 Systems:

QP011 -G— Documentation only (media: Z)

For RSX-11M Systems:

QP012 -G— Documentation only (media: Z)

For IAS Systems:

QP013 -G— Documentation only (media: Z)

ADDITIONAL SERVICES:

None

ADDENDUM
SOFTWARE SUPPORT CATEGORIES

Each software product (hereinafter 'SOFTWARE') with a designated Support Category A or B in the applicable Software Product Description (SPD) existing at the time of order will be the current release at the time of delivery and will conform to the SPD. DIGITAL's sole obligation shall be to correct defects (nonconformance of the SOFTWARE to the SPD) as described below. Any SOFTWARE with a designated Support Category C will be furnished on an 'as is' basis.

For SOFTWARE with a designated Support Category A or B, DIGITAL will provide the services set forth below without additional charge.

CATEGORY A

1. Upon notification by customer to the nearest DIGITAL office that the computer system, including all required prerequisite hardware and software, is ready for the installation of the SOFTWARE, DIGITAL will install such SOFTWARE in any location within the contiguous forty-eight (48) United States, the District of Columbia, or a country in which DIGITAL or a subsidiary of DIGITAL has a software service facility. The notification must be received by DIGITAL and the system must be ready for installation within thirty (30) days after the delivery of the SOFTWARE to customer or DIGITAL will have no obligation to install. Installation will consist of: (1) verification that all components of the SOFTWARE have been received by customer, (2) loading the SOFTWARE, and (3) executing a DIGITAL sample procedure.
2. During the ninety (90) day period after installation, if the customer encounters a problem with the current unaltered release of the SOFTWARE which DIGITAL determines to be a defect in the SOFTWARE, DIGITAL will provide the following remedial service (on site where necessary): (1) if the SOFTWARE is inoperable, apply a temporary correction (TC) or make a reasonable attempt to develop an emergency by-pass, and (2) assist the customer to prepare a Software Performance Report (SPR) and submit it to DIGITAL.
3. During the one (1) year period following installation, if the customer encounters a problem with the SOFTWARE which his diagnosis indicates is caused by a SOFTWARE defect, the customer may submit an SPR to DIGITAL. DIGITAL will respond to problems reported in SPRs which are caused by defects in the current unaltered release of the SOFTWARE via the Maintenance Periodical for the SOFTWARE, which reports SPRs received, code corrections, temporary corrections, generally useful emergency by-passes and/or notice of the availability of corrected code. Software Updates, if any, released by DIGITAL during the one (1) year period, will be provided to the customer on DIGITAL's standard distribution media as specified in the applicable SPD. The customer will be charged only for the media on which such updates are provided, unless otherwise stated in the applicable SPD, at DIGITAL's then current media prices.

CATEGORY B

During the one (1) year period following delivery, the services provided to the customer will be the same as set forth in 3 above.

CATEGORY C

SOFTWARE is provided on an 'as is' basis. Any software services, if available, will be provided at the then current charges.

DIGITAL shall have the right to make additional charges for any additional effort required to provide services resulting from customer use of other than current unaltered release of the SOFTWARE operated in accordance with the SPD.

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Software Product Description

PRODUCT NAME: RSTS/E FORTRAN IV-PLUS, Version 2.5 **SPD 14.49.0**

DESCRIPTION:

RSTS/E FORTRAN IV-PLUS is an extended FORTRAN implementation based on American National Standard (ANSI) FORTRAN, X3.9-1966. It operates under the RSTS/E operating system. The RSTS/E FORTRAN IV language includes the following extensions to the ANSI standard.

- general expressions allowed in all meaningful contexts
- mixed-mode arithmetic
- BYTE data type for character manipulation
- ENCODE, DECODE statements
- PRINT, TYPE, ACCEPT input/output statements
- direct-access unformatted input/output, DEFINE FILE statement
- comments allowed at end of each source line
- PROGRAM statement
- OPEN and CLOSE file access control statements
- list-directed input/output

RSTS/E FORTRAN IV-PLUS provides the following additional capabilities:

- INTEGER*4 (32-bit) data type
- ENTRY statement
- INCLUDE statement
- PARAMETER statement
- generalized DO loops
- lower, as well as upper, bounds specification in array declarators
- generic function selection based on argument data type for FORTRAN defined functions
- direct access formatted input/output

The RSTS/E FORTRAN IV-PLUS compiler produces direct PDP-11 machine code optimized for execution time efficiency on a PDP-11 with a floating point processor. RSTS/E FORTRAN IV-PLUS compiler optimizations include:

- optimizations of arithmetic and logical IF statements
- common subexpression elimination
- removal of invariant expressions DO loops
- allocation of processor registers across DO loops

Programs which do not use real, double precision, or complex quantities can be compiled into code which can be executed on processors with the EIS instruction set. The RSTS/E FORTRAN IV-PLUS compiler does not itself use the FPP, and can thus operate on processors with the EIS instruction set.

Object Time System

The RSTS/E FORTRAN IV-PLUS Object Time System (OTS) is a set of object modules selectively linked with compiler-produced object modules by the operating system's task builder to produce a task (program) ready for execution.

MINIMUM HARDWARE REQUIRED:

Any valid RSTS/E operating system configuration that includes:

Central processor with floating point processor

One of the following:

- PDP-11/34 with FP11-AU
- PDP-11/45, 11/55, or 11/70 with FP11-B or FP11-C
- PDP-11/60 (includes floating point processor)

Main Memory: The RSTS/E FORTRAN IV-PLUS compiler requires a user job area of 56K bytes and an 8K byte run-time system.

Auxiliary Storage: RSTS/E FORTRAN IV-PLUS requires up to 300 contiguous disk blocks for the compiler task. An additional 150 to 250 disk blocks are required for the Object Time System library file and auxiliary support files, depending on installation options. The compiler may use up to 350 blocks of temporary disk file space in compiling large programs.

OPTIONAL HARDWARE:

None

PREREQUISITE SOFTWARE:

RSTS/E, Version 6C or later

OPTIONAL SOFTWARE:

None

TRAINING CREDITS:

None

SUPPORT CATEGORY:

C — Software Support will be provided as stated in the Software Support Categories Addendum to this SPD.

UPDATE POLICY:

Software Updates, if any, will be made available according to then prevailing DIGITAL Policies.

ORDERING INFORMATION:

All binary licensed software, including any subsequent updates, is furnished under the licensing provisions of DIGITAL's Standard Terms and Conditions of Sale, which provide in part that the software and any part thereof may be used on only the single CPU on which the software is first installed, and may be copied, in whole or in part (with the proper inclusion of the DIGITAL copyright notice and any DIGITAL proprietary notices on the software) only for use on such CPU. All source licensed software is furnished only under the terms and conditions of a separate Software Program Sources License Agreement between Purchaser and DIGITAL.

Source and/or listing options are only available after the purchase of at least one binary license and after a source license agreement is in effect.

The following key (D, Q, R, V, Z) represents the distribution media for the product and must be specified at the end of the order number, e.g., QR100-CD = binaries on 9-track magnetic tape.

D = 9-track Magnetic Tape
Q = RL01 Disk Cartridge
R = Microfiche
V = RK07 Disk Cartridge
Z = No hardware dependency

QR100 -C— Single-use license, binaries, documentation, no support services (media: D, Q, V)

Source/Listing Options

QP101 -E— Object Time System (OTS) sources only (media: D)

QP101 -F— Listings (media: R)

ADDITIONAL SERVICES:

QS912 SZ One (1) day software consulting service RSTS/E FORTRAN IV-PLUS must be sold with the following customers support.

ADDENDUM
SOFTWARE SUPPORT CATEGORIES

Each software product (hereinafter 'SOFTWARE') with a designated Support Category A or B in the applicable Software Product Description (SPD) existing at the time of order will be the current release at the time of delivery and will conform to the SPD. DIGITAL's sole obligation shall be to correct defects (nonconformance of the SOFTWARE to the SPD) as described below. Any SOFTWARE with a designated Support Category C will be furnished on an 'as is' basis.

For SOFTWARE with a designated Support Category A or B, DIGITAL will provide the services set forth below without additional charge.

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2. During the ninety (90) day period after installation, if the customer encounters a problem with the current unaltered release of the SOFTWARE which DIGITAL determines to be a defect in the SOFTWARE, DIGITAL will provide the following remedial service (on site where necessary): (1) if the SOFTWARE is inoperable, apply a temporary correction (TC) or make a reasonable attempt to develop an emergency by-pass, and (2) assist the customer to prepare a Software Performance Report (SPR) and submit it to DIGITAL.
3. During the one (1) year period following installation, if the customer encounters a problem with the SOFTWARE which his diagnosis indicates is caused by a SOFTWARE defect, the customer may submit an SPR to DIGITAL. DIGITAL will respond to problems reported in SPRs which are caused by defects in the current unaltered release of the SOFTWARE via the Maintenance Periodical for the SOFTWARE, which reports SPRs received, code corrections, temporary corrections, generally useful emergency by-passes and/or notice of the availability of corrected code. Software Updates, if any, released by DIGITAL during the one (1) year period, will be provided to the customer on DIGITAL's standard distribution media as specified in the applicable SPD. The customer will be charged only for the media on which such updates are provided, unless otherwise stated in the applicable SPD, at DIGITAL's then current media prices.

CATEGORY B

During the one (1) year period following delivery, the services provided to the customer will be the same as set forth in 3 above.

CATEGORY C

SOFTWARE is provided on an 'as is' basis. Any software services, if available, will be provided at the then current charges.

DIGITAL shall have the right to make additional charges for any additional effort required to provide services resulting from customer use of other than current unaltered release of the SOFTWARE operated in accordance with the SPD.

DECUS SPECIAL INTEREST GROUPS

A DECUS Special Interest Group (SIG) is an activity whereby members of the DIGITAL Equipment Computer Users Society who share common interests in a particular field, join together to promote the interchange of information. Specialization may be in application areas such as education or industry, specific software systems such as OS/8 and RSX-11, or a specific mainframe such as the DECsystem-10/20.

SIG members derive numberous benefits from communicating with others who share specialized interests and who may wish to share their experiences. SIGs sponsor business meetings, tutorials, and workshops at the various chapter symposia which fulfill the two-fold purpose of fostering communication among users and between users and DIGITAL. Channeled communication provides DIGITAL and the users with insight into the direction of future developments. SIGs provide direct feedback to DIGITAL's in-house activities and have thereby made substantial contributions to OS/8, RSX-11, RSTS and TOPS-10.

User submitted articles, minutes of local meetings and letters comprise the major portion of the individual SIG newsletters. Suggestions, hints, bug fixes, program plans, or questions of a non-commercial nature are suitable material for SIG newsletters.

SIG members are encouraged to make presentations at the SIG sessions held during DECUS Symposia.

The semi-annual U.S. Symposia sessions are organized by special interest areas. Submissions received from the user community are reviewed by symposia committee members from the special interest groups for appropriate placement on the agenda.

Special Interest Group participation in the review of programs submitted to the DECUS Program Library provides an opportunity to improve the quality and utility of programs available to you and to fellow users.

DIGITAL standards are issued to DECUS members for review and on the theory and philosophy of the standards. DECUS is a voting member of ANSI X3. Users are encouraged to register their areas of expertise with DECUS and assist with reviewing standards. SIGs often play a role in this process.

Below is a list of U.S. Special Interest Groups within DECUS.

If you would like information regarding membership in any of the Special Interest Groups, contact DECUS U.S. Chapter, One Iron Way, MR2-3/E55, Marlboro, MA 01752 or one of the other DECUS Chapter offices in Kanata, Sidney or Geneva.

NETSIG—Networks Special Interest Group
RSTS SIG—RSTS and RSTS/E Special Interest Group
SIGIG—Special Interest Group on Interactive Graphics
ESIG—Engineering Applications Special Interest Group
SIG 18—18 Bit Users Special Interest Group
12-Bit SIG—12 Bit User Special Interest Group
RSX-11/IAS SIG
RT-11 SIG
EDUSIG—Educational Users Special Interest Group
DEBUG—Digital Equipment Business Users Group
MUSIG—Mumps Special Interest Group
PASCAL SIG
DBMS SIG
TECO SIG
LSI-11 SIG
COBOL-11 SIG
DATATRIEVE-11 SIG
Library Applications SIG
BIOMED SIG

DIGITAL EQUIPMENT COMPUTER USERS SOCIETY

RSTS-11 Special Interest Group

A Special Interest Group (SIG), as part of DECUS activities, has been formed to serve users of RSTS-11.

The organization of the SIG consists of a SIG Chairman, who will also act as the editor of any forthcoming newsletter, along with a DEC liaison and a SIG Coordinator. The DECUS office will handle the mailing list and circulation of the SIG newsletter. Submissions to the newsletter and other communications can be sent to the following address:

RSTS-11 Special Interest Group
c/o DECUS Office
One Iron Way - MR2-3/E55
Marlboro, MA 01752

SIG's activities encompass the following:

1. Preparation of a SIG newsletter (user submissions are strongly encouraged).
2. Exchange of user written programs. This exchange could include common interest BASIC-PLUS programs such as games, system accounting programs, and sort programs.
3. Establishment of communications with the DECUS staff to obtain for SIG members early information on RSTS-11 related additions to the DECUS Library. These communications will also serve to provide prompt testing of such submissions.
4. Establishment of user input to appropriate groups within DEC, so that they will receive user feedback on any additions or needed changes to RSTS-11. Additionally, respective SIG members may receive early warning from DEC about RSTS-11 changes.
5. Establishment of SIG maintained files of RSTS-11 errors and error solutions, where they exist.
6. Establishment of RSTS-11 "Welcome Wagon" type service to aid new users during system start-up.

If you wish to become a member of the RSTS-11 SIG, please fill out the form below and return it to the DECUS Office. (Please type or print.)

Are you a DECUS Member? _____ DECUS Membership Number _____

NAME _____

AFFILIATION _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

TELEPHONE NUMBER _____

Are you registered with DEC as an RSTS-11 user? _____

Version Number: _____

SOFTWARE PROBLEMS OR ENHANCEMENTS

Questions, problems, and enhancements to DIGITAL software should be reported on a Software Performance Report (SPR) form and mailed to the SPR Center at one of the following DIGITAL Offices: (SPR forms are available from the SPR Center).

AREAS COVERED	SPR CENTER
United States, remainder of Far East, Middle East, Africa Latin America	Administrative Services Group, SWS P.O.Box F Maynard MA 01754
Canada	Digital Equipment Canada P.O.Box 11500 Kanata Canada K2H 8K8 Ontario
United Kingdom	Digital Equipment Corp., LTD Fountain House Butts Centre RG1 7QN Reading England
Australia-Melbourne	Digital Equipment Aust. Pty., LTD 60 Park Street South Melbourne Victoria Australia 3205
Australia-Sydney	Digital Equipment Aust. Pty., LTD 123 125 Willoughby Road P.O.Box 491 Crows Nest NSW Australia 2065
Brazil	Digital Equipment Comercio Ind Rua Batatais 429 Esq AL Campin 01423 Jardim Paulista Sao Paulo 0100 Brazil
Caribbean	De Latin America P.O.Box 11038 Fernando Juncos Sta. Santurce PR 00910
France	Digital Equipment Corp., LTD. Centre Silic Cidex L225 18 Rue Saarinen 94533 Rungis France
Italy	Digital Equipment SPA Viale Fulvio Testi 117 20092 Cinisillo Balsamo Italy
Japan	Digital Equipment Corp., INTL 3rd Floor Kowa Building 8-7 Sanban Cho Chiyoda Ku Tokyo 102 Japan
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Austria, Poland Hungary, Rumania East Germany, West Germany, Russia, Czechslovakia	Digital Equipment Corp., GMBH Wallsteinplatz 2 8000 Munchen 40 Germany 8000
Israel	DECSYS Computers, LTD 7 Habakuk Street Il-Tel Aviv 63505 Israel

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